

 **BRAINTREE  
SCIENTIFIC, INC.**

**2013**

**Human on  
a chip**  
microphysiological  
system

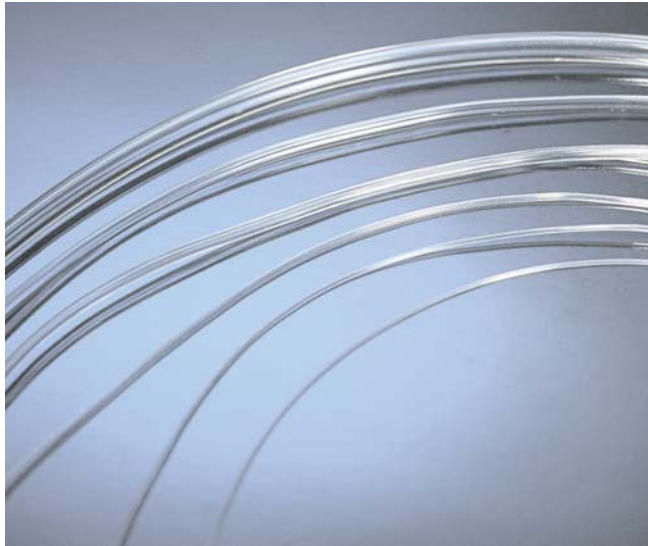






## Micro-Renathane® Implantation Tubing

*Reduces the probability of intravascular thrombosis*



### Polyurethane Catheter Tubing

Braintree Scientific is proud to present a major advance in chronic catheter material. In our opinion, Micro-Renathane® is the most blood-compatible tubing ever made. For implantation studies in experimental animals this new tubing offers extended catheter life and reduces the probability of intravascular thrombosis.

The scanning electron micrographs (approx. 10,000X) illustrate the dramatic difference between Renathane tubing and conventional vinyl tubing. After use in hemodialysis, Renathane showed significantly fewer surface deposits of platelets, proteins, trapped red cells and other blood elements than other tubings.

### "Medical Grade" Plastics

It is appropriate to clarify the definition of the phrases "medical grade" plastic and "FDA approved" plastic. There is no approved "medical grade" plastic or resin. Each individual supplier has his own criteria for what polymer and additive combinations constitute suitability for medical use. Similarly, there is no "FDA approved" plastic or resin in the Code of Federal Regulations. Food and Drugs, Title 21, Part 121, the FDA has listed the additives allowable in plastics intended for food contact use. In formulating a PVC compound for medical use the manufacturer generally chooses plasticizers, stabilizers, antioxidants, colorants, etc., which are acceptable for food use.

**Micro-Renathane® does not contain any plasticizers.**

### Medical Uses of Polyurethane

Polyurethane based polymers were introduced into the United States from Germany. Early biomedical applications of polyurethanes were described by Boretos and Pierce. They reported excellent vascular acceptability in experimental heart-assist pump chambers and arterial cannulae. In subsequent work Boretos reported the absence of acute toxicity for segmented polyurethanes. He also reported that polyurethane rings did

not deteriorate or cause tissue reaction after implantation for 18 months. Lyman and coworkers have also investigated polyurethanes for the fabrication of heart-assist devices. Artificial heart devices were constructed of this material and implanted in calves. Other uses of polyurethanes as biomaterials have been described by Bruck. Polyurethane based polymers are currently commercially employed in hollow fiber kidneys, vascular catheters and intra-aortic balloons. Due to the slightly higher cost of polyurethanes, they have only been used where exceptional biologic and blood compatibility is required.

Micro-Renathane® is sold only for experimental use in laboratory animals.

A brief report, with references, is included with each shipment of Micro-Renathane®. We will be pleased to send a copy upon request.

**Same price as 1989!**

*Supplied non-sterile.*

MODEL	SIZE
MRE-025	0.025" OD x 0.012" ID (0.64 OD x 0.30 ID mm)
MRE-033	0.033" OD x 0.014" ID (0.84 OD x 0.36 ID mm)
MRE-040	0.040" OD x 0.025" ID (1.02 OD x 0.64 ID mm)
MRE-050	0.050" OD x 0.040" ID (1.27 OD x 1.02 ID mm)
MRE-065	0.065" OD x 0.030" ID (1.65 OD x 0.76 ID mm)
MRE-080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)
MRE-095	0.095" OD x 0.066" ID (2.41 OD x 1.68 ID mm)
MRE-160	0.160" OD x 0.091" ID (4.06 OD x 2.31 ID mm)
MRE-037	0.037" OD x 0.023" ID (0.94 OD x 0.58 ID mm)
MRE-040-S-20	0.040" OD x 0.020" ID (1.02 OD x 0.50 ID mm)
MRE-080-S-38	0.080" OD x 0.038" ID (2.03 x 0.96 ID mm)t
MRE-COMBO	Combination of 36 feet in your choice of sizes
MRE-010	0.010" OD x 0.005" ID (0.25 OD x 0.12 ID mm)

\*Kit includes 12 individually packaged 3ft lengths.

†Minimum 36' when ordering continuous lengths.

*More length options available online at [braintreesci.com](http://braintreesci.com)*

### Teflon Coated Guide Wire

MODEL	SIZE
ST003-14	0.003" Teflon Coated Guide Wire 14"L (non-sterile)
ST003-7	0.003" Teflon Coated Guide Wire 7"L (non-sterile)

### **A Guide to Manufacture, Surgical Implantation, Maintenance and Use of Micro-Renathane® Vascular Catheters in Laboratory Animals**

by Alfred Sherer, D.V.M. and Lewis Kinter, Ph.D.

This comprehensive manual includes how to manufacture catheters from Micro-Renathane® tubing, different implantation techniques, catheter use, and maintenance.

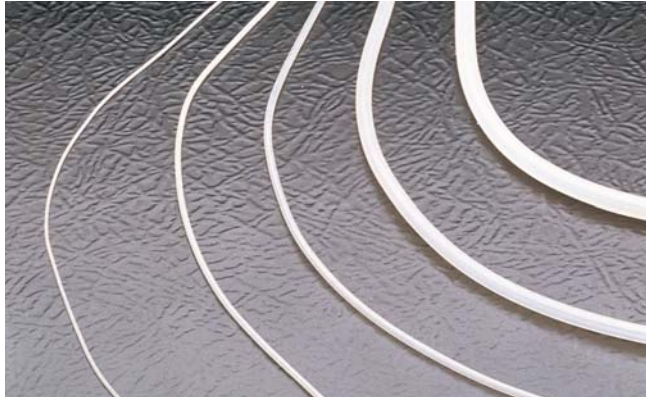
MODEL
MRE-MANUAL



## Tubing

### RenaSil™ Silicone Rubber Tubing

RenaSil™ is a Platinum cured silicone tubing that is inert and contains no harmful leachable plasticizers. It is essentially non-reactive. The tubing will maintain its flexibility through a temperature range of -100°F to 500°F. Storage temperature and humidity have virtually no effect on silicone tubing, therefore shelf life is unusually long. This tubing may be autoclaved and re-sterilized without altering physical characteristics. RenaSil™ meets the standards of the US Pharmacopoeia, Class IV and CRF 21 Part 177.2600 for food additives. All sizes are packaged clean, without talc and sealed in polyethylene bags.



Supplied non-sterile.

MODEL	DIMENSIONS
SIL025	0.025" OD x 0.012" ID (0.64 OD x 0.30 ID mm)
SIL037	0.037" OD x 0.025" ID (0.94 OD x 0.64 ID mm)
SIL047	0.047" OD x 0.025" ID (1.19 OD x 0.64 ID mm)
SIL065	0.065" OD x 0.030" ID (1.65 OD x 0.76 ID mm)
SIL080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)

### Polyethylene Tubing

Polyethylene is a relatively rigid polymer suitable for short-term catheterizations and for ex vivo applications. Polyethylene 'sleeves' can be slipped over less rigid catheter materials (Micro-Renathane™, Renasil™) at suture points to protect the latter from inadvertent constriction.

Supplied non-sterile. Minimum order 36 feet.

MODEL	DIMENSIONS
PE10	0.024" OD x 0.011" ID (0.60 x 0.28mm)
PE20	0.043" OD x 0.015" ID (1.09 x 0.38mm)
PE50	0.038" OD x 0.023" ID (0.965 x 0.58mm)
PE60	0.048" OD x 0.030" ID (1.22 x 0.76mm)
PE100	0.060" OD x 0.034" ID (1.52 x 0.86mm)

### PTFE Heat Shrink Tubing

(USP Class VI Approved)

Medical grade polytetrafluoroethylene tubing has high tensile strength and preserves high fidelity pressure waveforms with very small internal diameter tubing. PTFE heat shrink tubing can be shrink-fitted to make secure connections with other devices. 2-1 heat-shrink ratio.

Supplied non-sterile.

MODEL	EXP ID	REC ID	REC WALL	TOL
PTFE-015	0.034" ID (0.86mm)	0.015" ID (0.38mm)	0.006"	±0.002"
PTFE-018	0.038" ID (0.97mm)	0.018" ID (0.46mm)	0.009"	±0.002"
PTFE-032	0.055" ID (1.4mm)	0.032" ID (0.81mm)	0.012"	±0.003"
PTFE-039	0.060" ID (1.5mm)	0.039" ID (0.99mm)	0.012"	±0.003"

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### PTFE Sub-Lite Wall® Tubing

*A major breakthrough in micro-miniature tubing*

(USP Class VI Approved)



Medical grade polytetrafluoroethylene tubing has superior lubricity and slides easily into tiny convoluted passages. No residue build-up inside tubing, non-toxic, non-contaminating, and easily sterilized (excluding Gamma). Compatible with tissues and fluids, yet withstands moisture, it is chemically inert and stable. Continuous service temperature (up to 500°F).

Supplied non-sterile.

MODEL	OD/ID WALL	THICKNESS	LENGTH
SUBL-060	0.006" x 0.002" (0.15 x 0.05mm)	0.002"	25 ft coil
SUBL-080	0.008" x 0.004" (0.20 x 0.10mm)	0.002"	25 ft coil
SUBL-120	0.012" x 0.006" (0.30 x 0.15mm)	0.003"	25 ft coil
SUBL-140	0.014" x 0.008" (0.36 x 0.20mm)	0.003"	25 ft coil
SUBL-160	0.016" x 0.010" (0.41 x 0.25mm)	0.003"	25 ft coil
SUBL-190	0.019" x 0.013" (0.48 x 0.33mm)	0.003"	25 ft coil
SUBL-220	0.022" x 0.016" (0.56 x 0.41mm)	0.003"	25 ft coil

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### RenaPulse™ High Fidelity Pressure Tubing

*Measure blood pressure and waveforms more accurately, while keeping superb biocompatibility*

RenaPulse™ tubing, exclusively from Braintree Scientific, is made from a new material which transmits pulse waveforms with high fidelity. During pressure pulses, fluid flows into the catheter and depresses the diaphragm of a pressure transducer. However, the same pressure wave that reaches the transducer also causes the pressure catheter to bulge slightly. This bulging may allow a significant volume of fluid to flow in and out of the catheter with each pulse. Given the resistance of the catheter, this small flow can lead to pressure drop along the catheter and inaccurate pressure readings from the transducer. RenaPulse™ is a stiffer tubing which allows high fidelity measurement of systolic and diastolic pressures. Because air bubbles in pressure catheters are very 'soft,' they can completely distort the pulse wave. We make RenaPulse™ tubing transparent to help user locate and remove such bubbles. Small clots can block pressure catheters, and prevent pulse waves from reaching the transducer. Since RenaPulse™ has the superb blood compatibility of Micro-Renathane®, the chance of clot formation is greatly reduced.

These features make RenaPulse™ the tubing of choice for high fidelity pressure measurements in small animals. RenaPulse™ is flexible enough for direct vessel insertion. It can be bonded to luer lock terminations and stopcocks. RenaPulse™ can also be used with standard compression adapters or needle stubs.

Supplied non-sterile.

MODEL	DIMENSIONS
RPT-033	0.033" OD x 0.014" ID (0.84 OD x 0.36 ID mm)
RPT-037	0.037" OD x 0.023" ID (0.94 OD x 0.58 ID mm)
RPT-040	0.040" OD x 0.025" ID (1.02 OD x 0.64 ID mm)
RPT-080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)

\*Kit includes 12 individually packaged 3 ft lengths

\*Minimum 36 feet when ordering continuous lengths.

More length options available online at [braintreesci.com](http://braintreesci.com)



## Blunt Tip Catheter Needles

Stainless steel, blunt tip, hypodermic needle with standard luer hub. For use as an interface to connect a hypodermic syringe directly to catheter port for intravascular substance administration, blood sampling and catheter flushing.

### MODEL DIMENSIONS

NB-30	30 gauge - 0.5"
NB-27	27 gauge - 1"
NB-26	26 gauge - 0.5"
NB-25	25 gauge - 1"
NB-23	23 gauge - 1"
NB-22	22 gauge - 1"
NB-21	21 gauge - 1"
NB-20	20 gauge - 1"

## Sharp Tip Catheter Needles

Ultra-sharp, tri-beveled, anti-coring, stainless steel needle. Translucent, color-coded luer lock hub.

*Supplied sterile.*

### MODEL DIMENSIONS

NS-30	30 gauge - 0.5"
NS-27	27 gauge - 0.5"
NS-25	25 gauge - 1"
NS-23	23 gauge - 1"
NS-22	22 gauge - 1"
NS-21	21 gauge - 1"
NS-20	20 gauge - 1"
NS-18	18 gauge - 1"

## Stainless Steel Port Plugs

Stainless steel port plug, 0.5" length.

### MODEL DIMENSIONS

PP-30	0.012" plug
PP-28	0.014" plug
PP-27	0.016" plug
PP-23	0.025" plug
PP-22	0.028" plug
PP-21	0.032" plug
PP-20	0.036" plug
PP-19	0.042" plug

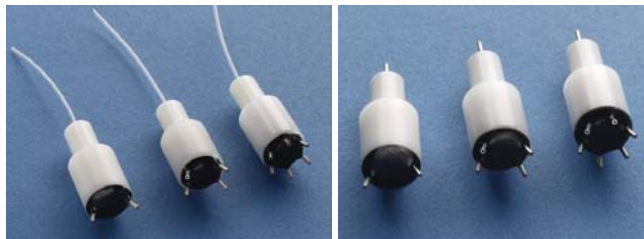
## Stainless Steel Connectors

Stainless steel tubing connectors, 0.5".

### MODEL DIMENSIONS

C-30	30 gauge
C-28	28 gauge
C-27	27 gauge
C-23	23 gauge
C-22	22 gauge
C-21	21 gauge
C-20	20 gauge
C-19	19 gauge

## Miniature Manifolds



Perfusion manifolds can be used in any application where from 2 to 8 perfusion lines are required to be connected to a chamber or other device. Manifold inputs converge to the common output with minimum dead space. Designed for use with polyethylene (PE) tubing, manifolds can be used with any other tubing of similar dimensions. When connected to a chamber via a short length of tubing, very rapid solution changes are possible.

Miniature manifolds are useful for applications involving small volumes or slow flow rates. Small diameter tubing is used with these models; PE-50 tubing for the input ports, and PE-10 or PE-50 tubing for the MM or ML series output ports, respectively.

### Specifications:

**Material:** Delrin™

**Large Diameter:** 8.0mm

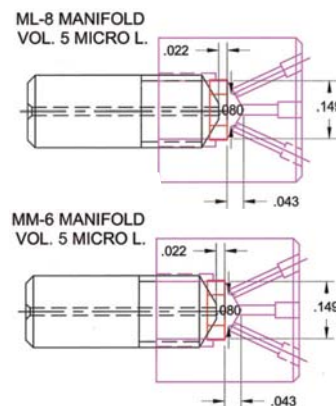
**Small Diameter:** 4.7mm

**Body Length:** 18mm

**Input Tubing:** PE-50

**Output Tubing:** ML Series PE-50

MM Series PE-10



### MODEL DESCRIPTION

ML-2	Miniature Manifold, 2 ports
ML-4	Miniature Manifold, 4 ports
ML-6	Miniature Manifold, 6 ports
ML-8	Miniature Manifold, 8 ports
MM-2	Miniature Manifold, 2 ports
MM-4	Miniature Manifold, 4 ports
MM-6	Miniature Manifold, 6 ports





# Catheters

## Vascular Catheters for Rats and Mice

Vascular catheters have stood the test of time because they are affordable and they work! These catheters, modified from the original design of Tinsley (1983), are fabricated with Braintree Scientific's medical grade polyethylene (PE) tubing and silicone rubber tubing (RenaSil™). Sealed with a stainless steel plug, when filled with a viscous catheter lock solution they maintain a very high rate of patency\* for several weeks.

### Both thoracic and femoral models feature:

- ▶ Externalized polyethylene (PE) tubing catheter port
- ▶ Flared for easy access with a blunted 23 ga. hypodermic needle for sampling or infusion
- ▶ Port is sealed with 0.025" diameter stainless steel plug when not in use
- ▶ Catheter port is designed to exit between the scapulae and to be secured with a single Autoclip® 9mm stainless steel wound clip.

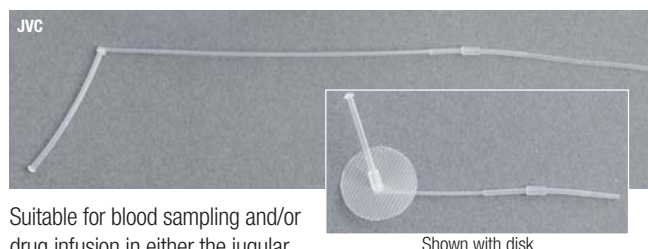
**Polyethylene (PE) tubing catheter body:** The rigidity of PE tubing minimizes the incidence of catheter lumen constriction and relaxation, an "eye dropper" effect, which allows blood to enter the intravascular tip. All catheter anchor points allow for suturing around the PE tubing minimizing the likelihood of suture induced catheter lumen constriction.

**RenaSil™ intravascular tip:** RenaSil™ as the intravascular tip for reducing intravascular thrombus formation.

**Reduced diameter intravascular tip:** Reducing the inner diameter of the intravascular tip relative to the inner diameter of the port allows for efficient expulsion of blood from the intravascular tip. The last step following catheter implantation or use should be to advance the stainless steel plug into the port for a few millimeters. This is sufficient to expel trace amounts of blood from the intravascular tip with a minimum amount of catheter lock solution entering the bloodstream.

\*Patency, especially for blood sampling, is highly dependent on the location of the intravascular tip.

## Thoracic Catheter

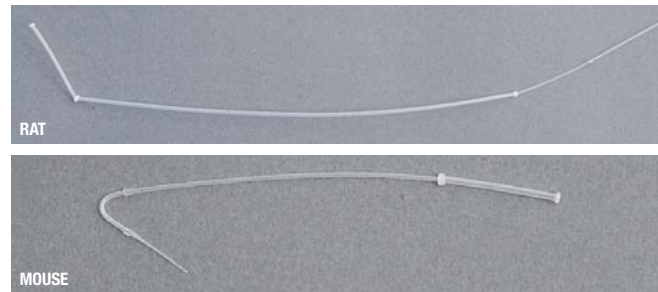


Suitable for blood sampling and/or drug infusion in either the jugular vein or carotid artery of the rat or mouse.

A subcutaneous retaining disk, consisting of 0.5" diameter disk of surgical mesh attached at the base of the catheter port, can be added to the R-JVC, R-CAC, and the R-FAC/FVC at an additional cost. This disk serves to anchor the catheter if the wound clip is dislodged or removed. If ordering please add a "D" to the end of the model number.

MODEL	DESCRIPTION	CATHETER TIP LENGTH	TOTAL LENGTH
R-JVC	Rat Thoracic Jugular Vein	32mm	115-120mm
R-CAC	Rat Thoracic Carotid Artery	26mm	110-115mm
M-JVC	Mouse Thoracic Jugular Vein	13mm	58-60mm
M-CAC	Mouse Thoracic Carotid Artery	11mm	56-58mm
PP-23	Stainless Steel, 0.025" - dia. port plug dozen		

## Femoral Catheter



MODEL	DESCRIPTION
R-FVC	Rat Femoral Vein Catheter*
R-FAC	Rat Femoral Artery Catheter*
M-FVC	Mouse Femoral Vein Catheter - catheter body length 45mm
M-FAC	Mouse Femoral Artery Catheter - catheter body length 45mm
PP-23	Stainless Steel, 0.025" dia. - port plug dozen

\*Suitable for blood sampling and/or drug infusion in either the femoral artery or femoral vein. The rat femoral catheter is available in three different sizes of catheter body length; **large (160-170mm), medium (140-150mm), and small (120-130mm).** Please specify when ordering.

## B.Ting™ Catheters

### For rodent vascular applications

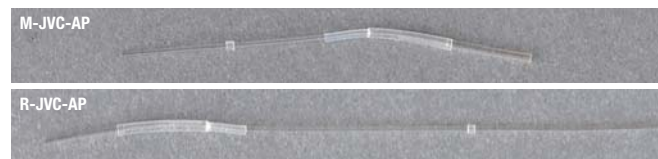


What is Bump-tubing (B.Ting™)?

Bump-tubing is a continuous length of Tecoflex® polyurethane tubing with a tapered transitional section resulting in catheter tubing with the intravascular tubing section having an ID/OD of 0.012"/0.025" and an extravascular tubing section having an ID/OD of 0.023"/0.037".

MODEL	DESCRIPTION
M-B.Ting	Mouse Jugular Vein Catheter Total catheter length: 65mm Intravascular tippet length: 13mm External catheter length: 10-15mm
R-B.Ting	Rat Jugular Vein Catheter Total catheter length: 115mm Intravascular tippet length: 32mm External catheter length: 25-30mm

## New! Intravenous Osmotic Pump Catheter



Braintree Scientific's Micro-Renathane® based catheter for continuous, intravenous (via the jugular vein) administration of drug solutions delivered with the ALZET® Osmotic Pump. Catheter can be modified for infusion via other blood vessels (please inquire).

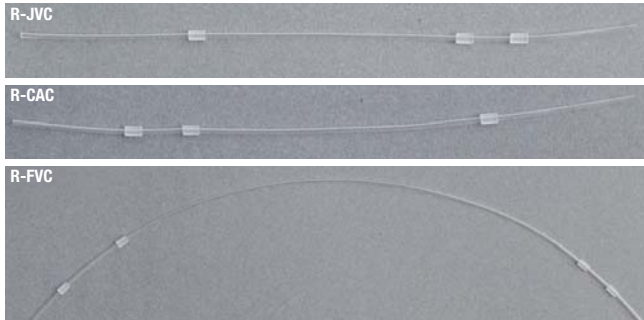
Supplied non-sterile

MODEL	DESCRIPTION
R-JVC-AP	Rat Intravenous Osmotic Pump Catheter
M-JVC-AP	Mouse Intravenous Osmotic Pump Catheter





## Polyurethane Rat Vascular Catheters (Micro-Renathane® and RenaPulse™)



- Catheters consist of a continuous length of MRE037 or RPT037 with RenaSil, suture anchors
- Catheters are accessed with Cat. #N-23 catheter needle
- Sealed with Cat. #23-PP catheter plug
- No adhesives; suture anchors grip the catheter tubing without constricting the catheter lumen and are movable
- Catheter tip rounding available for MRE037 catheter fabrications

### Rat Thoracic Catheters

#### Rat jugular vein catheter specifications:

**Total catheter length:** 120mm

**Port length:** 25mm

**Intravascular length:** 32mm

**Number of retention beads:** 3

MODEL	DESCRIPTION
R-JVC-M37 (MRE-037)	Rat Jugular Vein Catheter
R-JVC-R37 (RPT-037)	Rat Jugular Vein Catheter
R-JVC-M37-R (MRE-037)	Tip rounding for Rat Jugular Vein Catheter

#### Rat thoracic carotid artery specifications:

**Total catheter length:** 120mm

**Port length:** 25mm

**Intravascular length:** 26mm

**Number of retention beads:** 3

MODEL	DESCRIPTION
R-CAC-M37 (MRE-037)	Rat Carotid Artery Catheter
R-CAC-R37 (RPT-037)	Rat Carotid Artery Catheter
R-CAC-M37-R (MRE-037)	Tip rounding for Rat Carotid Artery Catheter

#### Rat femoral artery catheter specifications:

**Total catheter length:** 230mm (l), 210mm (m), or 190mm (s)

**Intravascular length:** 40mm

**Port length:** 25mm

**Number of retention beads:** 4

MODEL	DESCRIPTION
R-FVC-M37 (MRE-037)	Rat Femoral Artery Catheter
R-FVC-R37 (RPT-037)	Rat Femoral Artery Catheter
R-FVC-M37-R	Tip rounding for Rat Femoral Artery Catheter

## New! Mouse Intravascular Catheter



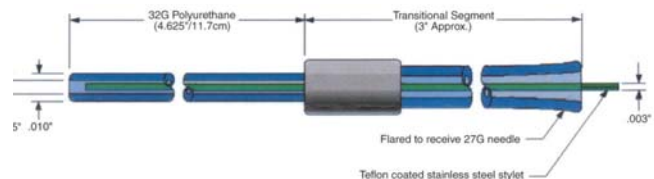
Designed for quick and easy insertion into arteries and veins of mice and rats (primarily mice).

*Supplied sterile.*

MODEL	DESCRIPTION	SIZE	TIP OD	TIP ID	MATERIAL
MC-0189EO	Mouse Catheter	28G, 60mm	.014"	.007"	PU

## 32ga Mouse Catheter System

*This catheter system offers the smallest diameter catheter/stylet product available for murine procedures*



### Ultra-thin diameter catheters for applications in mice:

This 32ga murine catheter is a key component of a withdrawal/delivery system specifically developed for use in mice and other small research animals. A significant achievement over standard polyethylene-based products, its material and small size combine to produce a minimally reactive catheter, thereby reducing catheter-induced artifacts that could obscure experimental observations. Suitable for cardiovascular, intracranial, and other applications.

#### Includes:

- 11.7cm 32ga (0.010" OD/0.005" ID) polyurethane catheter
- Bonded connection assembly flared to accept a 27ga needle
- 0.003" diameter Teflon®-coated stainless steel stylet to facilitate placement
- Individually packaged

MODEL	DESCRIPTION
CS-32	32ga Intracranial Catheter System

## Intrathecal Catheter



Braintree Scientific's rat intrathecal catheter offers a means for the administration of microliter amounts of drug solution to the lumbar (or higher) region of the rat spinal cord. This catheter system is ideal for use in antinociceptive studies involving rats.

MODEL	DESCRIPTION
R-ITC	Intrathecal Catheter
27-PP	Stainless Steel, 0.016" dia. port plug dozen



# Catheters

## Molecular Imaging Catheters



Catheter consists of medical grade PTFE tubing (SUBL-160, .016" OD x 0.010" ID), 40cm long with an attached 27ga blunted luer hub.

MODEL	DESCRIPTION
MIC	Molecular Imaging Catheter

## Restrained Tail Vein Infusion Model



Most researchers use butterfly needles to administer fluids via the tail vein. Allows access for both timed injections and repeated bolus administration. The MTV-1 system incorporates a small catheter that is easily inserted into the tail vein and will remain insitu in a restrained mouse for as long as restraint is feasible. Due to the flexibility and size of the catheter, trauma to the tail

vein is minimized, allowing for long term and repeated bolus dosing. By avoiding the damage associated with indwelling needles there is an increased chance that the tail vein will remain viable for the duration of the study.

MTV-2, MTV-2S, MTV-3 catheters are used for researchers that use small bore MRI machines or that need extra length for long bore magnets.

MTV-9 includes stylet, splittable needle and injection cap.

- ▶ Eliminates the need for an assistant
- ▶ Reduces setup and procedure time
- ▶ Provides superior control
- ▶ Improves visualization

MODEL	DESCRIPTION
MTV-1	Restrained Tail Vein Infusion Catheter 10cm of 28ga (0.014" x 0.007") connected to 7" of (0.033" x 0.014") with stylette and 23ga thin wall needle
MTV-2	10cm of 28ga (0.014" x 0.007") connected to 20" of (0.033" x 0.014") and 23ga thin wall needle, no stylette
MTV-2S	10cm of 28ga (0.014" x 0.007") connected to 20" of (0.033" x 0.014") with stylette and 23ga thin wall needle
MTV-3	10cm of 28ga (0.014" x 0.007") connected to 31.5" of (0.033" x 0.014") and 23G thin wall needle, no stylette

More options available online at [braintreesci.com](http://braintreesci.com)

## Micro Cannula System



The Micro Cannula System provides quick and convenient access to an artery or vein in small animals such as mice and rats. The tapered design of the PFA tubing provides strength while maintaining a very small distal tip of 0.016" OD x 0.008" ID. The sharpened stylette and beveled tip provides easy insertion into any vessel. Total length is approximately 10cm not including the stylette.

MODEL	DESCRIPTION
MC-28	Micro Cannula System

## Urinary Systems



URI bladder catheter systems were developed to maintain patency regardless of its position within the bladder. Its specific oval design covers a significant volume inside the bladder, and its elasticity allows it to collapse when the bladder is void; thereby decreasing discomfort and trauma to the mucosa wall.

MODEL	DESCRIPTION
URI-1	Small Bladder Catheter - rodents, small animals 125ga - 1kg Catheter Size: 3 French • Catheter material: Silicone
URI-2	Medium Bladder Catheter - animals 1kg - 5kg Catheter Size: 5 French • Catheter material: silicone

## Bile Duct Catheter

For bile duct collection in rats, with a fine diameter tip (MRE-025).

MODEL	DESCRIPTION
R-BDC	Bile Duct Catheter

## Duodenal Rat Catheter

Can be used as a return catheter; to shunt the bile into the duodenum; its tip is larger in diameter (MRE040).

MODEL	DESCRIPTION
R-DUOD	Duodenal Catheter

## Stereotaxic Brain Lesioning Cannula



These stainless steel cannulae are designed to fit in slotted acrylic stereotaxic clamping devices and are ideal for administering chemical solutions to discrete areas of the rat and mouse brain.

- ▶ Cannula consists of a 60mm length of 30ga stainless steel hypodermic tubing with a 45mm overlapping sleeve of 23ga stainless steel tubing to facilitate secure placement by the stereotaxic clamping device
- ▶ Tip of the cannula consists of exposed 30-gauge stainless steel hypodermic tubing, 10mm long
- ▶ Cannula comes with an 18" length of Tygon tubing with an end designed to fit over a micro syringe needle tip

MODEL	DESCRIPTION
RM-SBL	Stereotaxic brain lesioning cannula

## VAKU-8+ Safety Blood Collection Set/Infusion Set



Quiet Needle™ motionless needle system and Safety Guard for user's protection.

Its unique design allows the needle to rest motionless when the back end is moved; unlike other brands packaged in "coils" where the needle moves with the slightest

movement of the back end. VAKU-8+ is packaged in convenient long thin packages that fit easily in lab coats and trays.

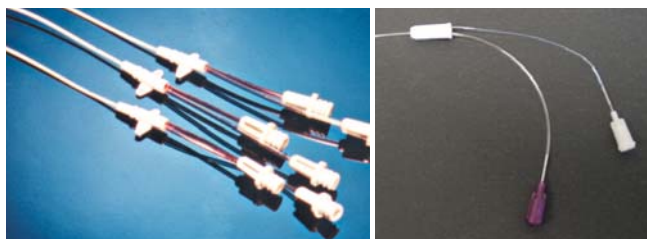
MODEL	DESCRIPTION
VACU8-21	21ga, 8"L Tubing (sterile)
VACU8-23	23ga, 8"L Tubing (sterile)
VACU8-25	25ga, 8"L Tubing (sterile)

\*100 items per pack





## Double Lumen Catheters



**DLR-4:** Now a single vessel puncture or cutdown can provide two access points! These catheters allow user to infuse incompatible drugs simultaneously, or maintain an IV drip while injecting test agents. Draw blood samples from one lumen while infusing down-stream without interference, interruption or dilution of the sample. When user can only get into one vessel, Braintree's double lumen polyurethane catheters may save the experiment. Includes luer lock hubs. Catheters are 6" (15cm) long and have tie-down tabs. One lumen opens at the tapered tip. The second lumen opens about 0.5" (1cm) behind the tip.

**DL-AS-040:** This double lumen catheter has an outer diameter of only 0.040" and consists of an inner SUBL-160 (PTFE) catheter and an outer MRE040 (polyurethane) catheter. The standard length of this double lumen catheter is 6" with both lumens opening at the proximal tip. The distal ends are equipped with luer hubs. *Supplied non-sterile.*

**CR-DL28:** Double lumen intracranial catheter system contains an 11.7cm 28g (0.025" OD distal portion/0.007" ID each lumen) polyurethane catheter, a bonded connection assembly flared to accept a 27ga needle, a 0.003" diameter Teflon®-coated stainless steel stylet to facilitate placement. Individually packaged. *Supplied non-sterile.*

**CR-DL32:** Double lumen intracranial catheter system contains an 11.7cm 32ga (0.018" OD distal portion/0.005" ID each lumen) polyurethane catheter, a bonded connection assembly flared to accept a 32ga needle, a 0.003" diameter Teflon®-coated stainless steel stylet to facilitate placement. Individually packaged. *Supplied non-sterile.*

**DL-5F:** Polyurethane central vein catheters. Double lumen CVC's allows multiple drugs to be administered through the same catheter. Can be utilized to infuse drugs/antibiotics, or blood sampling. *Supplied non-sterile.*

MODEL	DESCRIPTION
DLR-4	Double Lumen Renathane Catheter 4 French diameter approx. 0.050" (1.25mm) OD (kit of 3)
DL-AS-040	MRE-040 OD/SUBL-160
CR-DL28	11.7cm 28ga/0.007" ID
CR-DL32	11.7cm 32ga/0.005" ID
DL-5F	5F x 8cm Double Lumen Catheter with Soft Tip

## Skin Buttons



Rodent skin button with luer attachment: With all the features as the standard skin button, the skin button with a luer attachment allows for an external access port to the animals catheter. The animal's catheter is passed through the skin button and attached to a luer fitting. The luer fitting allows for

easy sampling or dosing via the animals catheter. This product comes as two pieces and is easily assembled during surgery.

MODEL	DESCRIPTION
SBD-02	Skin Buttons

## New! Y Connector Catheter



Y Connector Catheter is designed to be used with a syringe pump for infusion and withdrawal of fluids. Primarily used to adapt two osmotic pumps to one catheter line.

*Supplied sterile.*

MODEL	DESCRIPTION	SIZE	TUBE OD	TUBE ID	MATERIAL
Y-0189EO	Rat Catheter, single outlet	4.5F, 40mm	.052"	.034"	PE
Y-0189EO	Rat Catheter, double outlet	4.5F, 40mm	.039"	.023"	PE

## Cath-Loc HGS: Heparin/Glycerol Catheter Lock Solution



The antithrombotic characteristics of heparin plus the viscous nature of glycerol is combined in a solution to promote and extend the patency of vascular catheters. Proven as the solution of choice in studies in catheterized animals\*, Cath-Loc HGS solution acts as a non-toxic anticoagulant lock solution for indwelling catheters. This formulation is the most widely used as a pre-clinical catheter lock.

*\*Y.S. Luo, et. al. AALAS 2000 Comparison of Catheter Lock Solutions in Rats. Not for human use – animal research use only*

MODEL	DESCRIPTION
HGS	Cath-Loc HGS, 10ml vial

## Cath-Loc HD: Heparin/Dextrose Catheter Lock Solution



Cath Loc HDS acts as a non-toxic anticoagulant lock solution for indwelling catheters for pre-clinical research. This is one of the most common formulations used as a reliable pre-clinical lock solution to maintain catheter patency in vascular catheters. This solution, used in both large and small animals, combines the high viscosity of 50% dextrose with the anticoagulant activity of heparin to promote and extended implanted catheter patency. The high osmolarity of dextrose prevents bacterial colonization and multiplication and the high viscosity of dextrose reduces washout from the catheter tip. The heparin in the solution also aids in prevention of clot formation. Since both dextrose and heparin are physiological constituents which occur naturally in the blood, any excess Cath-Lock HDS injected is quickly metabolized, when used properly. Available in 10ml sterile vials.

MODEL	DESCRIPTION
HDS	Cath-Loc HD, 10ml vial





# Catheters

## Prefilled Syringes

Prefilled syringes for flushing, locking or sampling through any catheter or port system. Order what you need when you need it, in convenient, ready to use packaging. Syringe sizes range from 1cc-60cc with volumes from 0.2ml-60ml.

- ▶ Forget ordering and storing saline and other physiologic solutions in large, inconvenient containers
- ▶ Forget wasting time unwrapping countless individually wrapped syringes for your daily procedures
- ▶ Forget mixing sterile solutions and filling them in a less than sterile environment
- ▶ Catheter patency issues that arise two weeks after surgery or longer are most likely caused by poor maintenance procedures and not related to surgery



*Prefilled syringes can be filled with most any solution including saline, heparin/saline, dextrose, heparin/dextrose, and many others.*

MODE	SYRINGE SIZE	FILL VOL	HEPARIN	UNITS/CS
<b>Saline (0.9%) Filled Syringe</b>				
SYS-1-0.5	1cc	0.5cc	—	100
SYS-1-1.0	1cc	1cc	—	100
SYS-3-2.0	3cc	2cc	—	50
SYS-3-3.0	3cc	3cc	—	50
SYS-5-3.0	5cc	3cc	—	50
SYS-5-5.0	5cc	5cc	—	50
SYS-10-10.0	10cc	10cc	—	30
SYS-60-60.0	60cc	60cc	—	10
<b>Heparin &amp; Saline Filled Syringes</b>				
SYH-50-0.5	1cc	0.5cc	50u/ml	100
SYH-50-1.0	1cc	1cc	50u/ml	100
SYH-50-2.0	3cc	2cc	50u/ml	50
SYH-50-3.0	3cc	3cc	50u/ml	50
SYH-100-0.5	1cc	0.5cc	100u/ml	100
SYH-100-1.0	1cc	1cc	100u/ml	100
SYH-100-2.0	3cc	2cc	100u/ml	50
SYH-100-3.0	3cc	3cc	100u/ml	50
SYH-300-0.5	1cc	0.5cc	300u/ml	100
SYH-300-1.0	1cc	1cc	300u/ml	100
SYH-300-2.0	3cc	2cc	300u/ml	50
SYH-300-3.0	3cc	3cc	300u/ml	50
SYH-500-0.5	1cc	0.5cc	500u/ml	100
SYH-500-1.0	1cc	1cc	500u/ml	100
SYH-500-2.0	3cc	2cc	500u/ml	50
SYH-500-3.0	3cc	3cc	500u/ml	50

## Blunt Needles with Syringe

Attached blunt needles on 1cc syringes not only save tremendous amounts of time but will also help lower costs.

Additional size syringes are available and can be supplied with any size blunt needle. All syringes are capped and ETO exposed. Call for additional sizes.



MODEL #	SIZE	GAUGE	LENGTH	QTY/PK
B20-50-1	1cc	20	0.5"	25
B20-100-1	1cc	20	1"	25
B22-50-1	1cc	22	0.5"	25
B22-100-1	1cc	22	1"	25
B23-50-1	1cc	23	0.5"	25
B23-100-1	1cc	23	1"	25
B25-50-1	1cc	25	0.5"	25
B25-100-1	1cc	25	1"	25

## Zero Dead Volume Sterile Syringes



Zero Dead Volume sterile syringes offer researcher the ability to completely remove all fluid from the syringe for zero test article of blood loss.

MODEL	DESCRIPTION	UNITS/PK
Z1-22-PK	1cc Zero Dead Volume syringe with 22G connector	25
Z1-22-CS	1cc Zero Dead Volume syringe with 22G connector	100
Z1-22-ST	1cc Zero Dead Volume syringe without connector	10



Shop online at [www.braintreesci.com](http://www.braintreesci.com)



## EZ Clip™

*Ideal for use with lab animals or in veterinary surgery*



Autoclip® and EZ Clip™

Racks of 9mm clips are individually packaged in heat sealed, peel-away sleeves for cleanliness, ease of handling and storage. EZ Clips™ are packaged 20 clips on a rack, with 5 racks per strip (100 clips total). They can be purchased by the strip, 2 strips (200 clips) or by the case (1000 clips). Clips are pyrogen free and non-sterile. However, the autoclavable plastic packaging allows for sterilization of the clips without removing them from the packaging. The Clip Applicator is a stainless steel applying forcep that holds one rack of 20 clips. Works like a staple gun to apply clips to wound. The clips are fed by rustless beryllium-copper springs. The Clip Remover is also stainless steel and can be used to remove all sizes of wound clips.

MODEL	DESCRIPTION
EZC-KIT	EZ Clip Kit
EZC-APL	EZ Clip Applicator
EZC-RMV	EZ Clip Remover
EZC-SL	EZ Clips, Non-Sterile, 10 Racks (200 clips)
EZC-CS	EZ Clips, Non-Sterile, Case (1,000 clips)

## Reflex 7mm Wound Closure System



For those who prefer the smaller clip; the Reflex 7mm Skin Closure System is the right choice.

MODEL	DESCRIPTION
RF7-APL	Applier
RF7-CS	Case of 100/box
RF7-RMV	Remover
RF7-KIT	Includes applier, remover and 100 clips . . .

## Autoclip® Wound Closing System



The Autoclip® Applier works like a staple gun to rapidly apply Autoclip closures. The applier will hold 20 Autoclips, which are held firm and ready for use by rustless beryllium-copper springs.

Autoclips provide maximum holding force with minimal trauma. There is no need for assistance to operate the applier or remover. When the wound is healed, clips are easily removed with the Autoclip Remover. Stainless steel Autoclips are non-pyrogenic and supplied non-sterile, but may be autoclaved. Ideal for use with laboratory mice and rats.

MODEL	DESCRIPTION
ACS-KIT	Autoclip Starter Kit (includes applier, remover, and 1,000 clips)
ACS-APL	Autoclip Applier
ACS-RMV	Autoclip Remover
ACS-BX	Autoclips 100/box
ACS-CS	Autoclips 1,000/case

## Basic Sutures for Small Animal Surgery

### Non-absorbable natural silk

The softness of natural silk has been preserved in this high-grade suture.

### Spools

MODEL	SIZE	MATERIAL	LENGTH
103-S	7-0	Silk	100 yds
104-S	6-0	Silk	100 yds
106-S	5-0	Silk	100 yds
108-S	4-0	Silk	100 yds
110-S	3-0	Silk	100 yds
113-S	2-0	Silk	100 yds
116-S	0	Silk	100 yds
119-S	1	Silk	100 yds

### Spools with swagged needles

MODEL	DESCRIPTION	SIZE	MATERIAL	LENGTH
S-1074	0.375" circle reverse cutting	3-0	Silk	18"
S-7116	0.5" circle taper point double needle	4-0	Silk	24"
S9-403	Straight taper	3-0	Silk	30"

## Vascular Ports and Clamps



## Microport for Vascular Access

### Specifications:

**Uses:** For mice larger than 10g

**Housing size:** 0.124" H x 0.35" L x 0.37" W  
(3.15mm H x 9mm L x 9.1mm W)

**Punctures:** 100 cycles with a 27ga needle

**Weight:** 0.10g

**Dead Space:** 0.010cc (including catheter)

**Catheter length:** 4.40cm (1.75")

**Catheter size:** 0.54mm (0.021")

**Catheter material:** Stainless steel

MODEL	DESCRIPTION
MICROPORT	Microport for Vascular Access in Mice



## Micro Clip Setting Forceps

MODEL	DESCRIPTION
FC148	4.75" L

## Micro Vascular Clips

MODEL	OCLUSION PRESSURE	VESSEL DIA.	LENGTH
MVC-00	10-15g	1mm	8mm
MVC-02	15-20g	1-2mm	11mm
MVC-04	20-30g	2-3mm	14mm

## Small Port

### Specifications:

**Uses:** For rodents to very small animals

**Housing size:** 0.24" H x 0.88" L (6mm H x 22mm L)

**Punctures:** 1500 cycles with a 22 gage non-coring needle

**Dead space:** 0.030cc

**Catheter length:** 25cm (10")

**Catheter size:** 3 French

**Catheter material:** Polyurethane or silicone

**Tip to first bulb distance:** 35mm or 60mm

MODEL	DESCRIPTION
S-ISC-35P	Port - Polyurethane, 35mm bulb distance
S-ISC-60P	Port - Polyurethane, 60mm bulb distance
S-ISC-35S	Port - Silicone, 35mm bulb distance
S-ISC-60S	Port - Silicone, 60mm bulb distance







## Instruments

### New! NSET™ Non-Surgical Embryo Transfer Device



ParaTechs Corporation has revolutionized embryo transfer in mice with the NSET™ non-surgical embryo transfer device for mice. NSET allows non-surgical embryo transfer for production of research (transgenic or knock-out) mice. NSET is a major refinement of murine embryo transfer as it eliminates pain and stress of surgery and anesthesia.

MODEL	DESCRIPTION	QTY
NSET	Non-Surgical Embryo Transfer Device	10/bx

### Technocut® Plus Disposable Safety Scalpels

*The safety and performance you need*



- ▶ Fully extended blade enables clear line of sight
- ▶ Top activation allows for ambidextrous use
- ▶ Fully enclosed front enhances blade stability and security
- ▶ Audible clicks help confirm proper blade position
- ▶ Final lock for safe handling and disposal
- ▶ Non-slip ergonomic handle with metric scale
- ▶ Color coded slider button for easy blade size identification
- ▶ Highest quality standards
- ▶ Uses premium GLASSVAN® blades. Computerized grinding and proprietary polishing processes for the blades ensure consistent, clean, sharp cutting edges
- ▶ Scalpel blades produced from high quality, high durability Swiss stainless steel
- ▶ Scalpels manufactured in ISO 13485 certified facilities

MODEL	SIZE
SSS-10	#10
SSS-11	#11
SSS-12	#12
SSS-15	#15
SSS-20	#20

\*10 sterile scalpels per box, 5 boxes per case

### Surgical Spears



Disposable, super absorbent surgical spears for use during ophthalmic and other microsurgical procedures. Available in cellulose and PVA.

*Supplied sterile.*

MODEL	DESCRIPTION
SP-40400	PVA Surgical Spears
SP-40410	Cellulose Surgical Spear

\*5 spears per pack, 20 packs per box.

### Disposable Stainless Steel Safety Scalpel



Engineered for safety and simplicity. Complies with the OSHA directive by providing a fully retractable scalpel blade, which protects the user from accidental needle sticks associated with traditional scalpels.

Reusable sterile stainless dissecting surgical blades and handles also available – call for size and pricing.

*Supplied sterile. Single use.*

MODEL	SIZE
4-510	#10
4-511	#11
4-515	#15

### Scissors

#### SuperCut Scissors

Manufactured with the highest grade surgical stainless steel. Tempered and hardened for a longer sharper life. The SuperCut blade has a specially designed razor sharp edge.

#### Tungsten Carbide Scissors

Unique tungsten carbide cutting edges provide effortless yet accurate cuts through the toughest tissue. Shanks are tempered to allow proper flexibility and comfort. Finger rings are well rounded and polished allowing better feel while preventing finger fatigue.

MODEL	DESCRIPTION
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#### SuperCut Surgical Scissors - Sharp/Blunt

SC508	Surgical Scissors - Straight 5.5" (139.7mm)
SC511	Surgical Scissors - Curved 5.5" (139.7mm)

#### SuperCut Metzenbaum Scissors - Delicate

SC523	Straight, 4.5" (114.3mm)
SC525	Curved, 4.5" (114.3mm)

#### SuperCut Iris Scissors

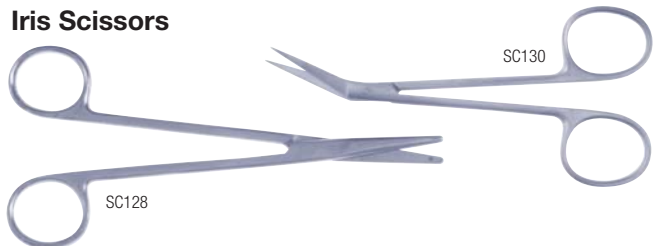
SC528	Straight 4.5" (114.3mm)
SC529	Curved 4.5" (114.3mm)

#### Tungsten Carbide - Iris Scissors

SC405	Straight, 4.5" (114.3mm)
SC406	Curved, 4.5" (114.3mm)

### Specialty Scissors

#### Iris Scissors



For precise vascular and neurological dissection. Ideal for small specimens. 4.5", (114.3mm)

MODEL	DESCRIPTION
SC128	Std. Pattern, Straight
SC129	Std. Pattern, Curved
SC130	Std. Pattern, Angled



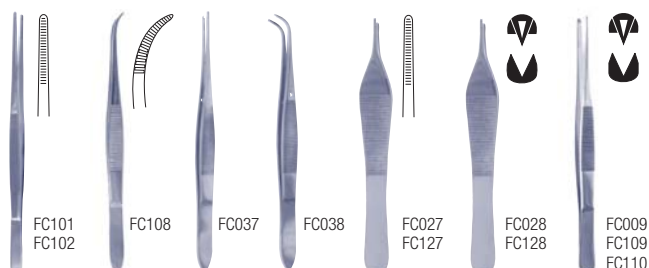
## Dissection Scissors

### Metzenbaum Scissors

Offering a unique combination of narrow blunted points along with thin delicate shafts for delicate dissection and minimal damage to surrounding tissues.

MODEL	DESCRIPTION
SC125	Curved, Delicate, 5.5" (139.7mm)
SC126	Curved, Delicate, 7" (177.8mm)
SC180	Curved, Std. Pattern, 5.5" (139.7mm)
SC182	Curved, Std. Pattern, 7" (177.8mm)

## Forceps



### Premium Grade Dressing Forceps

Serrated tips and ribbed grip to assist with delicate dissection. Standard pattern, serrated handle.

MODEL	DESCRIPTION
<b>Standard Pattern, serrated handles</b>	
FC1001	Premium Grade 4.5" (114.3mm)
FC1002	Premium Grade 5" (127mm)
<b>Curved, delicate narrow tips</b>	
FC1008	Premium Grade 5" (127mm)

### Iris Tissue Forceps

Sharp 1 x 2 interlocking teeth for secure grip with minimal tissue compression.

MODEL	DESCRIPTION
FC0037	Straight, 1 x 2 teeth, 4" (101.6mm)
FC0038	Full curved, 1 x 2 teeth, 4" (101.6mm)

### Adson Forceps

Extra broad ribbed grip for delicate precision dissection. Available with serrated or toothed tips.

MODEL	DESCRIPTION
<b>Standard Grade</b>	
FC027	Dressing, serrated, 4.75" (120.7mm)
FC028	Tissue 1 x 2 teeth, 4.75" (120.7mm)
<b>Premium Grade</b>	
FC127	Dressing, serrated, 4.75" (120.7mm)
FC128	Tissue 1 x 2 teeth, 4.75" (120.7mm)

### Delicate Specialty Dissection Forceps

MODEL	DESCRIPTION
<b>Delicate Tissue Forceps</b>	
FC032	Serrated, 5" (127mm)
FC033	Tissue, 1 x 2 teeth, 5" (127mm)
FC041	Fine Point, 4.5" (127mm)

**Extensive selection of instruments available.**  
Please email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.

## Standard Pattern Tissue Forceps

Secure ribbed grip.

MODEL	DESCRIPTION
<b>Standard Pattern, Serrated Handles, 1 x 2 Teeth</b>	
FC009	Standard Grade, 4.5" (114.3mm)
FC109	Premium, 4.5" (114.3mm)
FC110	Premium, 5" (127mm)

## Dumont Forceps

MODEL	DESCRIPTION
FC-5005	109mm Inox, 45° angle, tip 0.05 x 0.01mm
FC-5058	109mm Dumoxel, 45° angle, tip 0.10 x 0.06mm
FC-5043	110mm Inox, straight, 11cm



## Micro Instruments

### Micro Scissors

Very delicate scissors for precision dissection. Excellent for small animal dissection.

MODEL	DESCRIPTION
<b>Micro Iris Scissors</b>	
SC150	Straight, sharp points, 4" (101.6mm)
SC151	Curved, sharp points, 4" (101.6mm)
<b>Micro Scissors</b>	
SC152	Straight, superfine blades, 3.25" (82.5mm)
SC153	Curved, superfine blades, 3.25" (82.5mm)
SC154	Right Angle 4"
SC155	Left Angle 4"

### Premium Grade Micro-Tissue Forceps

FC145	Curved Tip 4.25" (107.95mm)
FC146	Narrow Fine Tip 4.25" (120mm)
FC147	Super Fine Tip 4.25" (107.95mm)

## Alm Retractor

### Specifications:

**Spread:** 2.75" (7cm)  
**Prongs:** 2.25" (5.7cm)  
**Depth:** 0.125" (0.32cm)



MODEL	DESCRIPTION
ALM112	Alm Retractor

## Instrument Cases

**Biocon:** Extremely durable; easy to open, yet remains tightly shut when not in use.

MODEL	DESCRIPTION
CS7550	Holds up to 8 instruments in separate compartments
CS7575	Holds up to 10 instruments in separate compartments

**Zippered:** Velveteen-lined case with "leather-look" vinyl exterior; zips closed around three sides

MODEL	DESCRIPTION
CS7700	Holds up to 12 instruments



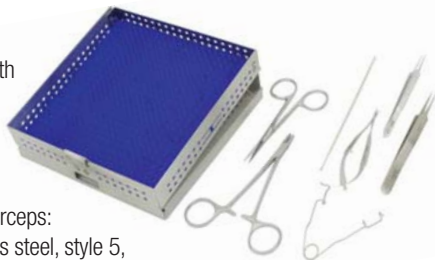


## Instruments

### Microsurgical Instrument Kit

#### Includes:

- ▶ DERF needle holder: grated jaws, 4000 teeth per square inch, 4.75" (12.1cm)
- ▶ Iris scissors: straight, 4" (10.2cm)
- ▶ SWISS jeweler style forceps: non-magnetic stainless steel, style 5, micro-fine, 4.375" (11.2cm)
- ▶ McPHERSON micro iris suturing forceps: straight, smooth platform 0.3mm x 5mm, no teeth, 3.5" (8.9cm)
- ▶ McPHERSON-VANNAS micro iris scissors: straight, sharp points, 3.25" (8.3cm)
- ▶ PlainWire eye speculum: blades 15mm wide, 2.5" (6.4cm)
- ▶ Probe: double ended, malleable, sterling, 4.5" (11.4cm)
- ▶ Storage cassette: 6.5" x 6.25" x 1.25"
- ▶ Storage cassette mat



MODEL	DESCRIPTION
MSK-6890	Microsurgical Instrument Kit
MSK-6890-NC	Kit without Storage Cassette & Mat

**Extensive selection of instruments available.**  
**Please email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**

### Rat Dissection Kit

#### Includes:

- ▶ Dumont forceps #5
- ▶ Vannas scissors
- ▶ SuperCut iris scissors, straight
- ▶ Alm retractor
- ▶ Needle holder
- ▶ Blunt probe
- ▶ Zippered case



MODEL	DESCRIPTION
MDK-R	Rat Dissection Kit

### Mouse Dissection Kit

#### Includes:

- ▶ Dumont forceps #5
- ▶ Vannas scissors
- ▶ Dissecting scissors
- ▶ Wire retractor
- ▶ Needle holder
- ▶ Blunt probe
- ▶ Zippered case



MODEL	DESCRIPTION
MDK-M	Mouse Dissection Kit



## Surgical Tables and Boards

### Small Animal Surgery System



The small animal surgery system sets a new standard of procedural control. The fully integrated procedural and stabilization system provides precisely controlled retraction at the operative site. The CD+ Labs System allows researchers to operate independently eliminating the need for an assistant or

improvised assistive devices. The system removes the complexities and distractions of improvised set-ups, allowing the researcher to focus full attention on the surgical procedure.

- ▶ Eliminates the need for an assistant
- ▶ Reduces setup and procedure time
- ▶ Provides superior control
- ▶ Improves visualization

Animal tables are made of ferro-magnetic steel and incorporate a window for compatibility with body temperature maintenance systems.

Fixators hold retractors. Contain rare earth magnets that attach anywhere on the animal table. A push-button top operates multi-level locking jaws that grip wire or elastomers firmly. They can be adjusted linearly or rotationally with finger-tip release. Complete depression of the push-button allows for insertion of the wire or elastomer while partial depression of the

push-button allows for adjustment. Fixators can also lock onto other lab components that require stabilization in the surgical setting, such as neurological or rectal probes or anesthesia delivery systems. The magnetic field is well controlled within the fixator to minimize interference with sensitive instrumentation. In fact, at a distance of just a few centimeters, the effects of these small but powerful magnets are completely masked by earth's ever present magnet field.

Retractor wires are formed from light, flexible stainless steel. This simple approach produces an economical instrument that performs its job with minimal clutter, while providing superb control and feel. Retractor wires can be used on their own to retract or manipulate tissue, or fitted to provide a wide range of retractor styles. Retractor wires engage and lock into the fixator jaws at the desired elevation allowing both linear and rotational adjustment over the entire length of the wire. One end of the wire is formed in a loop to provide grip for a gloved hand, and the business end is formed into a right angle hook that can retract on its own or lock to a range of retractor tips. Can also be reformed to create restraints or engage other lab apparatus that need to be secured in the surgical field. Wires are available in 10cm and 14cm lengths for mouse and rat procedures. Retractor tip widths range from 1mm to 7.5mm, plus a single point, sharp tissue hook. Each tip can be locked onto a wire for static retraction or affixed to an elastomer to form a dynamic retractor.

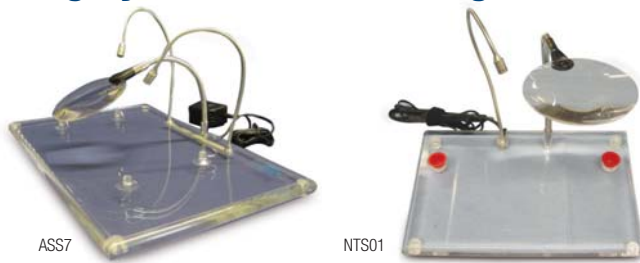
MODEL	DESCRIPTION
ACD-014	Small Animal Set (Mouse)
ACD-015	Medium Animal Set (Rat)



# Surgical Tables and Boards



## Surgery and Micro Tattooing Platform



Can be used for surgery, micro manipulations, general micro-utility platform (i.e. organ inspections, dissections, etc.).

- Flex arm, non-obstructive rimless magnifying glass (main lens: 2.3 X; inset lens: 4.0 X)
- Non-skid feet for added stability.
- Universal input power supply (100-240 VAC, 50-60 Hz)

### Surgery Platform:

- Two flexible LED lights - provides direct illumination, no shadows and no heat
- Limb restraints
- Size: 9"x13.5"

### Micro Tattooing Platform:

- One Flexible LED light - provides direct illumination with no heat
- Cup holders (1.5ml)
- Size: 6" x 9"

MODEL	DESCRIPTION
ASS7	Surgery Platform
NTS01	Micro Tattooing Platform

### Dissection Tray:

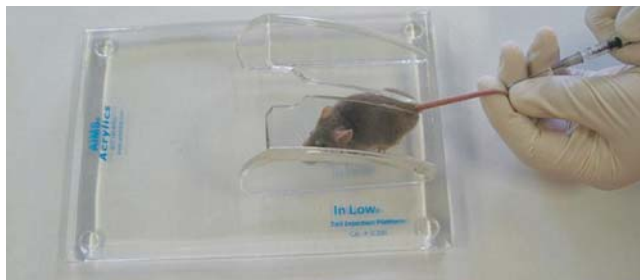
Add a dissection tray with a wax base pinning surface for *detailed* dissections!



MODEL	DESCRIPTION
DTW1	Dissection Tray 9.5" x 7" x 1"
DTW5	Dissection Tray (five trays per pack)

## Tail Vein Injection Platform

**The quickest and easiest restraint for tail vein injections.**  
**Simply pull mouse tail through the slot and make injection!**



- Non-grip surface
- Wide opening for easy access
- Open slot for easy cleaning feces and urine easily washed away

MODEL	DESCRIPTION
IL-300	Tail Vein Injection Platform

## Tail Snipping Platform

**For isolating DNA from transgenic animals for genotyping**



Simply pull mouse tail through the slot, measure and collect tip in the vial.

- **Micro Tube Holder:** Collect tail tip directly in the prelabeled tube preventing DNA cross contamination
- **Measuring Ruler (mm):** Accurately measure tail length for cutting. Enhances IACUC compliance
- **Cleaning Slot:** Feces and urine are easily washed out with stream of water (minimizes cross contamination)

MODEL	DESCRIPTION
IL-200	Tail Snipping Platform

## BioLite Stand

**Simple durable stand is easy to clean, store, and is portable**



Constructed from durable polycarbonate, this platform provides the perfect stage for intubating mice and rats of all sizes.

The animal is suspended from the incisor wire on the angled side of the stand. Three mounting positions are available to customize the placement of the animal on the stand in order to meet the user's needs. Two sets of posts are provided with each

stand. Each post has three positions for the height adjustment to optimally accommodate user and animal.

Stand is constructed from a single piece of polycarbonate plastic with a seamless design. The top of the stand provides a hand rest for stabilization during intubation that is designed to support significant weight. Compact seamless design and its construction make this stand easy to clean. Will not crack with the use of harsh cleaning agents as with similar stands constructed from acrylic.

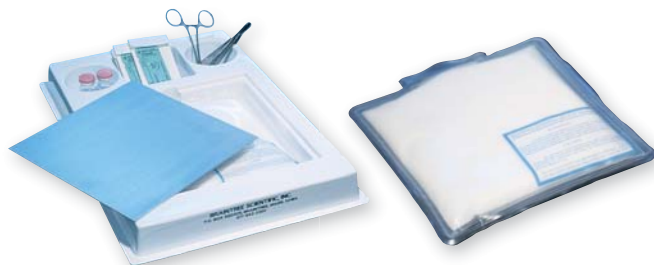
MODEL	DESCRIPTION
RIS-100	For Mice
RIS-200	For Rats





## Surgical Tables and Boards

### Deltaphase® Operating Board



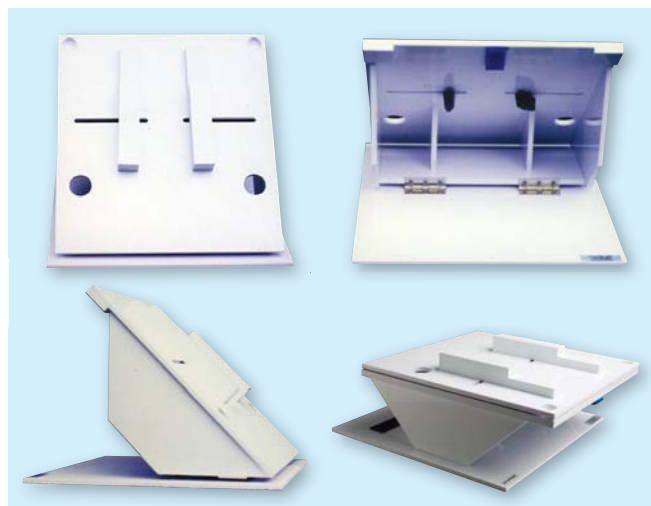
This compact operating board takes advantage of the Deltaphase principle to maintain animal body temperature during surgical or experimental procedures. An 8.5" square stainless steel operating surface lies in contact with an activated Deltaphase isothermal pad. The underside of the pad is insulated to provide a longer isothermal period. Molded wells are provided for sponges, instruments and anesthetic apparatus.

This board was designed by research scientists to be functional, durable, and easy to clean. Its low cost and safety make it appropriate for use in student laboratories. The unit is supplied with two Deltaphase pads. Each pad is 8" x 8" x 0.75"

MODEL	DESCRIPTION
39 OP	Operating Board, 2 Deltaphase Pads and 2 Insulators
39 DP	Includes 3 Deltaphase Pads and 3 Insulators only (no board).

Instruments shown not included.

### Rodent Work Stand



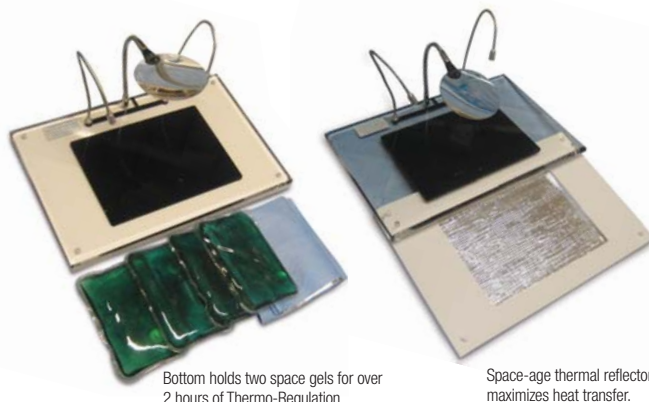
Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position for the technician during endotracheal intubation and intratracheal dose instillation and other similar procedures. 12" wide x 14" deep x 5.375" high when flat, tilted it is 9.5" high. (Flat: 30.48cm x 35.56cm x 13.65cm, tilted: 24.13cm high)

Heated work stand kit converts this work stand to a heated work stand.

MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand
RW-HHP	Heated Pad Kit

### Thermo Controlled Surgery Platform

*Easily maintain animal body temperature during surgery!*



Bottom holds two space gels for over 2 hours of Thermo-Regulation.

Space-age thermal reflector maximizes heat transfer.

- ▶ Two flexible LED lights provide direct illumination with no shadows and no heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Flex arm, non-obstructive rimless magnifying glass, 2.3 X main lens, 4.0 X inset lens. Allows continuous eye contact with object when moving into magnification area
- ▶ Limb restraints
- ▶ 4 Space Gels for continuous heat
- ▶ 2 Space Blankets to retain heat
- ▶ Non-skid feet for added stability
- ▶ Universal input power supply
- ▶ Size: 13.5" L x 9" W

MODEL	DESCRIPTION
ASS7T	Thermo Control Surgery Platform with Space Gels
SPGL-S	Space Gel Pad 4" x 6"
SPGL-L	Space Gel Pad 5.5" x 10"
SPDR	Space Drape 12" x 6", (2 drapes per pack)
ASS7D	Thermo Control Surgery Platform with Deltaphase Pads
DPIP	Deltaphase Isothermal Pad 6" x 7.5"

See microscope section for digital microscope attachments.



Visit our website at [www.braintreesci.com](http://www.braintreesci.com)



## DecapiCones®

*The economical mouse and rodent restrainer*



DC-200



MDC-200

Make injections and decapitation quicker and easier with Braintree Scientifics DecapiCones. Tapered plastic film tubes provide quick and easy restraint of rats, mice, and other small animals. I.P. injections can be made directly through the film! DecapiCones restrain post-decapitation kicking and prevent personal contact with feces or urine.

A unique dispenser holds DecapiCones open and ready for use. Simply hold the DecapiCone in one hand and

introduce the animal with the other. Animals enter readily, heading for the breathing hole at the small end. Roll and squeeze the large end closed.

They may be used repeatedly for injections and simply discarded when soiled. For decapitation, hold at the rear and insert the small end into the decapitator.

MODEL	DESCRIPTION
MDC-200	For Mice 200 DecapiCones (2 dispensers contain 100 cones each)
DC-200	For Rats 200 DecapiCones (4 dispensers contain 50 cones each)
DCL-120	For Large Rats (500-800g) 120 DecapiCones (4 dispensers contain 30 cones each)

## Rotating Tail Injector

*Reduce time and increase productivity on mice tail injections and tattooing!*

The only mouse restrainer in which the tail can be rotated. This feature provides for easy access to either vein in the tail for an i.v. injection. Animal chamber accommodates mice weighing up to 45g. RTI is ideal to adequately restrain an unanesthetized animal while having the tail vein straight in line with user's eyes for a successful injection. A pattern of airholes provide ventilation as well as a "toe-hold" for the mice.

The unit sits comfortably on a bench top or in a laminar flow hood and it can be U.V. sterilized for use with immunocompromised mice. The raised table top lets user rest their hands to administer the injection.



MODEL	DESCRIPTION
RTI	Rotating Tail Injector (for mice up to 45g)
RTI-I	Standard Replacement Tube

## Howard Flip Restrainer



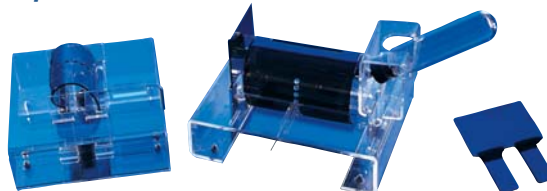
The "Howard Flip Restrainer" is a rodent restraint device used for I.V. tail vein blood collection and injection. The unit rests on a sturdy steel base which keeps it from moving during injection. The restraint cylinder is raised

from the base in order to provide a more ergonomic working position for the user. Tail vein blood collection can be very difficult in rats and mice. The cylinder allows the user access to both tail veins by use of a hinge which is connected under the cylinder. If the user misses one vein, they can flip the unit over which will allow access to the other vein. The rat unit also features a removable door which allows the user to load the animal forward causing less stress on the rat.

MODEL	DESCRIPTION
HFR-M	Howard Flip Restrainer for Mice
HFR-R	Howard Flip Restrainer for Rats up to 450g

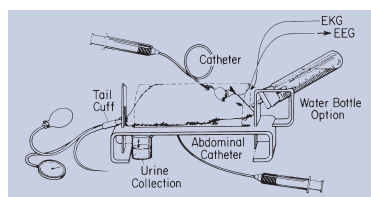
## Universal Restrainer

*Experiments made easier*



- ▶ **Adjustable:** Unique spiral grip makes single-size restrainers obsolete
- ▶ **Low stress:** Gentle, but secure. Rats can not turn or escape, natural posture maintained
- ▶ **Easy to use:** Complete experimental access
- ▶ **Stable and strong:** Wide base stands up to daily use, heavy construction
- ▶ **Easy to clean:** Opens fully, will not corrode, no blind ends. Plastic and stainless steel construction
- ▶ **Improved technique:** Save time and effort when handling laboratory rats. User has both hands free. Relax and avoid accidents, knowing animals are gently but firmly restrained

MODEL	DESCRIPTION
<b>Mouse Restrainer (for mice 20-60g)</b>	
500M	Smoked Canvas
500M-C	Clear Canvas
<b>Rat Restrainer (for rats up to 350g)</b>	
700R	Smoked Canvas
700R-C	Clear Canvas
<b>Rat Restrainer with watering system</b>	
800R	Smoked Canvas
800R-C	Clear Canvas



*Rat model also features unique spiral grip and optional watering system.*



## Restrainers

### Dorsal Access Mouse Restrainer



Accurate, safe and fast way to give injections. The dorsal skin of the mouse is easily accessed through the top circular opening enabling the user to perform subcutaneous injections without risk of being bitten and less likelihood of user sticking own finger.

- ▶ Easy entry: draw mouse tail first or lead head first through the wide entry funnel into the back of the tube and then position stop gate in choice of two slots
- ▶ With tail first entry, tail is exposed at rear of tube allowing easy access for tattooing and tail bleeds
- ▶ Overall dimensions: 7.4cm L x 10cm W x 6.7cm H (6.8"L x 3.9"W x 2.6"H)
- ▶ For mice 18-35g
- ▶ Made from crystal-clear, durable, and chemical resistant TPX®
- ▶ Unlike acrylic, can be repeatedly disinfected with EtOH and is autoclave-safe

MODEL	DESCRIPTION
DA-MOUS	Dorsal Access Mouse Restrainer

### Tailveiner®

#### Tail vein injection made easier!

The Tailveiner is the first easy-to-use mouse and rat restrainer specifically designed for tail vein injections. Slotted tube permits the rat or mouse to be quickly pulled in by the tail. The animal is then restrained by a plug which slides easily to accommodate any size rat or mouse, but locks automatically when handle is released. After dosing, the handle is lifted and the plug is easily removed. The Tailveiner is the fastest restrainer yet for intravenous injections in small animals.



MODEL	DESCRIPTION
TV-150	For Mice 1.25" ID Tube
TV-Small	For Mice 1.125" ID Tube
RTV-170	For Rats up to 120g
RTV-180	For Rats up to 350g
RTV-190	For Rats up to 500g

### Solid Brass Mouse Restrainer

The Solid Brass Mouse Restrainer is designed to comfortably restrain a mouse for tail vein injections or sampling.

#### Specifications:

**Size:** 2" x 4"

**Weight:** 2 lbs

- ▶ Able to warm for animal comfort and vasodilatation of the tail
- ▶ Solid brass maintains heat for extended periods
- ▶ Weight provides a stable and secure placement on lab bench
- ▶ Can be sterilized via autoclave, ETO, liquid, VHP
- ▶ Long lasting



MODEL	DESCRIPTION
SAI-MBR	Solid Brass Mouse Restrainer

### ECU™ Experimental Conditioning Unit

#### Conditions rats and mice for long experiments



ECU provides comfortable containment of experimental animals to facilitate repeated measurements of physiological and pharmacological parameters. *Not a restrainer:* animals are preconditioned (trained) to accept appropriate periods of confinement in the ECU. Blood pressure, clearance, and metabolism studies are better and easier using ECUs.

ECU consists of a molded plexiglass canopy hinged to a plexiglass base. Canopy has a tapered opaque plastic hood to protect the animal from visual disturbances. Multiple slots and an end plate allow adjustment of the canopy length for animal size and easy access to dorsal catheters and electrical leads.

The base has a large through drilled slot for accessing ventral catheters, feces and urine. Four comfortable slots are provided to support the feet.

The Braintree Scientific ECU is set up in position with the required equipment. The animal is placed in the ECU and the catheters and leads connected to the appropriate devices. Our ECU has been used for studies of anti-hypertensive drugs: development of hypertension as a function of age, renal and drug clearance, metabolism, and endocrinological studies.

ECU units are tailored for different sizes of rats and mice as a function of body weight.

For best results, animals should be conditioned to appropriate periods of confinement in the ECU. This is easily achieved by introducing animals to the ECU daily for increasing periods of time.

MODEL	DESCRIPTION
G-05	ECU less than 50g
G-1	ECU 50 to 120g
G-2	ECU 120 to 250g
G-3	ECU 250 to 350g
G-4	ECU 350 to 400g
G-5	ECU 400 to 800g

### Economy Flat Bottomed Restrainers

Individual semicylindrical plastic restrainers in small, medium and large. Each unit has an open slot on the bottom (for intra-peritoneal injections), a hole on the top (for the neck), and a slotted tail piece (for intravenous injections). Front slots provide ample ventilation.



MODEL	DESCRIPTION
FB-S	Small Mouse Restrainer (for mice 15 to 30g) 1.5" D x 4" (3.81cm D x 10.16cm)
FB-M	Medium Rat Restrainer (for rats 30 to 125g) 2" D x 5" (5.08cm D x 12.70cm)
FB-M/L	Medium/Large Rat Restrainer (for rats 125 to 250g) 2.5" D x 6" (6.35cm D x 15.24cm)
FB-L	Large Rat Restrainer (for rats 250 to 500g) 3.375" D x 8.5" (8.57cm D x 21.59cm)

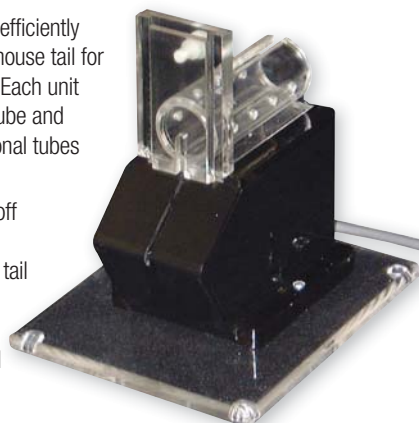




## Mouse Tail Illuminator

The mouse tail illuminator efficiently illuminates and warms a mouse tail for easy injection or bleeding. Each unit comes with a restraining tube and illumination source. Additional tubes are available.

- ▶ Restraining tube slides off base for easy cleaning
- ▶ Illuminated slot for easy tail vein injection, etc.
- ▶ Sliding doors keep mouse gently restrained



MODEL	DESCRIPTION
MTI	Mouse Tail Illuminator
MTI-1	Standard Replacement Tube
MTI-2	Smaller Tube 1.125"
MTI-3	Rotating Tube

## Illuminated Rodent Tail Vein Unit



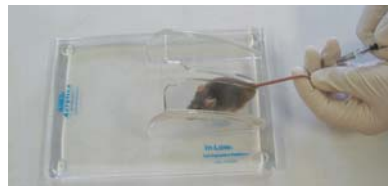
Offers an "illuminated rodent tail vein" unit featuring "brite light" illumination system with rechargeable batteries and recharger unit.

- ▶ Clear plastic tail insertion cone
- ▶ Formed white base housing batteries, on/off switch, and lights
- ▶ Base acts as battery charging unit
- ▶ Electrical plug for recharging batteries. (100 to 240 VAC capacity)

MODEL	DESCRIPTION
IRC-562	Illuminated Rodent Tail Vein Unit includes 2 rechargeable batteries

## Tail Vein Injection Platform

**The quickest and easiest restraint for tail vein injections.**  
**Simply pull mouse tail through the slot and make injection!**



- ▶ Non-grip surface
- ▶ Wide opening for easy access
- ▶ Open slot for easy cleaning feces and urine easily washed away

MODEL	DESCRIPTION
IL-300	Tail Vein Injection Platform



Shop online at [www.braintreesci.com](http://www.braintreesci.com)

## Tail Snipping Platform

**For isolating DNA from transgenic animals for genotyping**

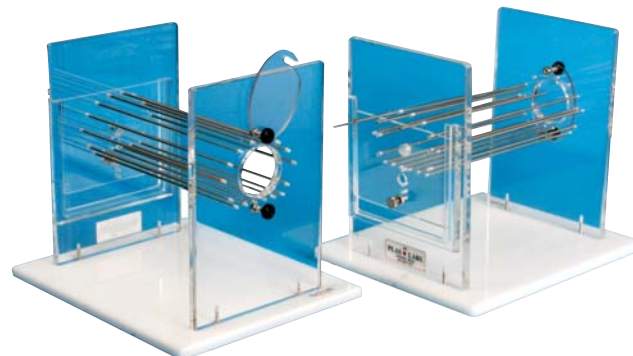


Simply pull mouse tail through the slot, measure and collect tip in the vial.

- ▶ **Micro Tube Holder:** Collect tail tip directly in the prelabeled tube preventing DNA cross contamination
- ▶ **Measuring Ruler (mm):** Accurately measure tail length for cutting. Enhances IACUC compliance
- ▶ **Cleaning Slot:** Feces and urine are easily washed out with stream of water (minimizes cross contamination)

MODEL	DESCRIPTION
IL-200	Tail Snipping Platform

## Bowman Style Rodent Restrainer



The Bowman Style Rodent Restrainer has been re-engineered and refined to accommodate larger sized animals up to 750 grams. The positions of the stainless steel rods around the rodent provide easy access for many types of research applications, especially obesity studies.

Rodent can quickly be inserted into restrainer by removing several stainless steel upper rods, or through an access port hole in rear upright. Access port hole features a polycarbonate locking door to prevent escape.

Front "guillotine" style door can be adjusted and locked by using any one of three adjustment positions. The door has a stainless steel "spring loaded" lock. Suction cup feet on white plastic base secure the device during use.

- ▶ Weight range from 250 up to 750 grams
- ▶ Maximum length of the rodent compartment is 9" (228mm)
- ▶ Eighteen (18) stainless steel rods are adjustable up to 3.5"  $\varnothing$  (89 mm)
- ▶ Rear access port opening is 2"  $\varnothing$  (50.8 mm). Polycarbonate locking door is attached by a 'Nylock' fastener to prevent future operational loss.
- ▶ Overall height is 11" (279 mm)
- ▶ Base size is 10" x 12" (254 mm x 305 mm)
- ▶ Basic unit is constructed of 0.5" (12.7 mm) jeweled acrylic

MODEL	DESCRIPTION
POR-530	Bowman Style Rodent Restrainer



## Feeding Needles and Equipment

Animal	Weight Range	Ball Diameter
Mice	25-150g	1.25mm
Rats	100-400g	2.25mm
Rats	350-500g	3.00mm
Other	over 450g	4.00mm

### Reusable Feeding Needles



MODEL	GAUGE	LENGTH	BALL DIA.
N-001	24ga	1" Straight	1.25mm
N-002	22ga	1" Straight	1.25mm
N-003	20ga	3" Straight	2.25mm
N-004	18ga	3" Straight	2.25mm
N-005	20ga	3" Curved	2.25mm
N-006	18ga	3" Curved	2.25mm
N-007	16ga	3" Curved	3.00mm
N-008	18ga	1" Straight	2.25mm
N-009	16ga	4" Curved	3.00mm
N-010	20ga	1.5" Curved	2.25mm
N-020	22ga	1.5" Straight	1.25mm

\*Items shipped by the dozen or 4 per pack.

### Sterile Flexible Plastic (PTFE) Disposable Feeding Needles



Animal feeding needles (AFN) allow user to precisely dispense liquid to animal while minimizing the chances of esophageal piercing. Sterile, non-toxic, and non-pyrogenic, available in a variety of gauges and lengths.

100 sterile needles per box.

MODEL	GAUGE	LENGTH	BALL DIA.	QTY
DT-9928	18ga	1.5"	2mm	100
DT-9925	15ga	3.07"	2.8mm	100
DT-9920	20ga	1.5"	1.9mm	100

Additional sizes coming soon.

### **New!** Flexible Plastic (PTFE) Disposable Feeding Needles with Bite Protectors



Flexible plastic (PTFE) tube is covered at hub end with 304 stainless steel tubing, protecting tubing from damage due to biting during use. Plastic (PTFE) tube is softer than other tubing types, very flexible and translucent for easy confirmation of reagent delivery. Plastic luer hubs and soft silicone tips, non-toxic and non-pyrogenic.

Packaged 5 needles per sterile peel pouch/20 pouches per box.

MODEL	GAUGE	LENGTH	BALL DIA.	QTY
BG-9928	18ga	1.5"	2mm	100
BG-9923	18ga	2"	2mm	100
BG-9924	18ga	3"	2mm	100
BG-9926	17ga	3.3"	2.4mm	100
BG-9925	15ga	3.1"	2.8mm	100
BG-9927	15ga	3.9"	2.8mm	100

### Sterile Malleable Disposable Feeding Needles



These needles feature plastic luer hubs and silicone tips and can be easily formed to desired shape.

100 sterile needles per box.

MODEL	GAUGE	LENGTH
D-001	20G	1.5" Straight
D-002	18G	2" Straight
D-003	15G	3" Straight

### Dyets Powder Feeder Jar Setup

- Prevents tipping or moving of Dyets feeding jar
- 100% stainless steel for easy cleaning and durability
- Versatile design allows for placement in any cage corner
- Set contains jar, lid, follower, and holder



MODEL	DESCRIPTION
DYETS	Dyets Powder Feeder Jar Setup

### Rodent Feeder Bar



- Administer easily! No special skills required and completely eliminates need for dangerous gavage procedure
- Reduce time! Administer dose to 10-15 animals in 5-10 minutes
- Mix drugs directly to any available food matrix (peanut butter, yogurt, cheese)
- Confirm visually drug uptake by animals
- Work effortlessly with small or large groups of animals
- Animals adapt to a feeder bar fast and effortlessly
- Works for all rodents

MODEL	DESCRIPTION
FD-BAR	Rodent Feeder Bar
	Bite Guard

## Enrichment Products



### New! Rat Loft™

Perforated stainless steel platform that is bent to form a hook allowing loft to be hung from top lip of cage. Easy to install and can be left in cage for cleaning. Stainless steel will not rust, crack, or bend.

Research rats are housed in either metal wire bottom cages or plastic solid bottom cages called shoeboxes. Wire bottom cages are the preferred industry cage due to cleanliness and low labor maintenance. However, rats housed in these cages may develop lesions on their feet from constantly being on wire mesh. Shoebox cages use bedding which addresses animal welfare concerns but also carry increased operational costs to maintain acceptable sanitary conditions, research facilities using these cages must replace the bedding frequently.

Designed by a researcher who is genuinely concerned with the welfare of rats and is aware of the concerns of researchers.

- ▶ Increases floor space per cage
- ▶ Stainless steel is easily cleaned and durable
- ▶ No replacement or disposal issues
- ▶ Less expensive over time than disposable and plastic devices
- ▶ Allows nursing mother rats a place of refuge from pups
- ▶ Seems to have a calming effect on rats
- ▶ Easy to install and remove
- ▶ New hinged floor design allows researcher to access rat if beneath it



MODEL	DESCRIPTION
Rat-Loft	4" x 6" Hinged perforated deck

### New! Cocoon Nesting Fibers



Cocoon is the latest environmental enrichment nesting and bedding product for rodents. Offers the animal an opportunity to fulfill their nesting instincts.

The fibers of the Cocoon product are very short which is safer for the animal and allows it to create a soft nest,

much like in its natural habitat. Cocoon is whitened without chlorine. Sold 6,000 cylinders per case.

MODEL	DESCRIPTION	UNITS
COCO-087	Cocoon Nesting Fibers	6,000/cs

### New! Refuge Mouse Hut



A comfortable and quiet place to rest, or to climb on and explore.

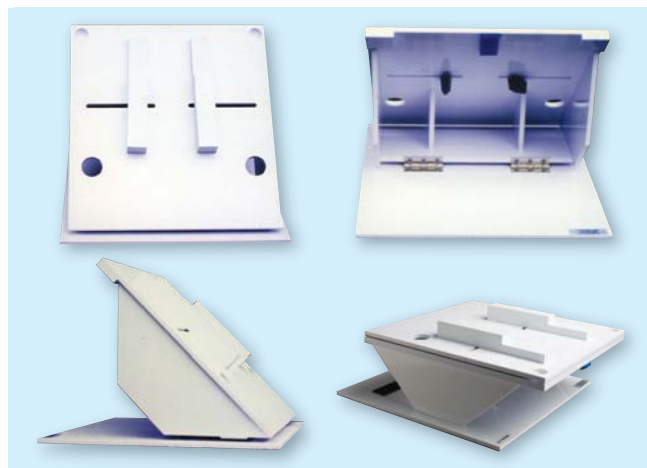
- ▶ Material to shred (just for fun or to build a nest), usually last 7 to 30 days
- ▶ 4"W x 4"L x 2.5"H, 3 openings
- ▶ Environmentally safe, non-toxic

MODEL	DESCRIPTION	UNITS
REFUGE-087	Refuge Mouse Hut	1,000/cs

## Intubation



### Rodent Work Stand



Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position for the technician during endotracheal intubation and intratracheal dose instillation and other similar procedures. 12" wide x 14" deep x 5.375" high when flat, tilted it is 9.5" high. (Flat: 30.48cm x 35.56cm x 13.65cm, tilted: 24.13cm high)

Heated work stand kit converts this work stand to a heated work stand.

MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand
RW-HHP	Heated Pad Kit

### BioLITE Stand

*Simple durable stand is easy to clean, store, and is portable*



Constructed from durable polycarbonate, this platform provides the perfect stage for intubating mice and rats of all sizes.

The animal is suspended from the incisor wire on the angled side of the stand. Three mounting positions are available to customize the placement of the animal on the stand in order to meet the user's needs. Two sets of posts are provided with each stand. Each post has three positions for the height adjustment to optimally accommodate user and animal.

Stand is constructed from a single piece of polycarbonate plastic with a seamless design. The top of the stand provides a hand rest for stabilization during intubation that is designed to support significant weight. Compact seamless design and its construction make this stand easy to clean. Will not crack with the use of harsh cleaning agents as with similar stands constructed from acrylic.

MODEL	DESCRIPTION
RIS-100	For Mice
RIS-200	For Rats





# Intubation

## BioLITE Intubation Illumination System



The BioLITE system provides better anatomical visualization and combines several tools into one reducing the intubation time making the intubation process fast and easy.

The BioLITE System consists of a family of products: fiber optic illuminator (FO-Light), fiber optic stylets (FOS), endotracheal tubes (ETT), and lung inflation bulbs (LIB) packaged in a variety of kits to meet the individual needs for a variety of research interests.

Unlike other flashlight based fiber optic illuminators, the FO-Light houses an optical system that provides highly efficient light coupling into small core fiber optics resulting in intense illumination. Without the optical system, intensity of light output is insufficient to visualize anatomical features, which is why other flashlight based fiber optic illuminators are not compatible with small core fiber optics.



Using a small core fiber optic as both the stylet and guide wire, the FOS provides enough rigidity for applying mechanical force while remaining flexible enough to traverse convoluted paths. Light can also be delivered through the stylet/guide wire, enabling the user to illuminate the discrete places in the oropharynx directly where needed.

As accessories to the illuminator and stylets, endotracheal tubes and lung inflation bulbs have

specific qualities and provide feedback making them essential to any intubation procedure. The endotracheal tubes are urethane based IV catheters that are softer and more flexible than PTFE based catheters, minimizing the trauma associated with intubation. Lung inflation bulbs provide a means for verifying correct intubation through direct visualization of chest distention, which is more reliable than observing mirror fogging or abdominal breathing.

Also available as a Complete Kit (CO-Kit) that includes all the BioLITE System products for mouse and both sizes of rat. The BioLITE System is available in the following kits:

- ▶ Large Rat Kit (200+ grams, LR-Kit)
- ▶ Small Rat Kit (less than 200 grams, SR-Kit)
- ▶ Mouse Kit (10+ grams, MI-Kit)

Each kit contains all the necessary equipment to perform small rodent intubations fast, easy, and relatively painlessly.

- ▶ Fiber optic illuminator (FO-Light)
- ▶ Appropriate size fiber optic stylet (FOS-xxx)
- ▶ 5-pack of the appropriate size endotracheal tubes (ETT-xx-05)
- ▶ 3-pack of lung inflation bulbs (LIB-03)

Though the BioLITE System was initially created for intubation, it remains a highly efficient small core fiber optic illumination system and can essentially be used in any application that requires intense illumination of a small space in a tortuous location.

For those interested in alternate applications or have no need for the intubation accessories, we offer a Stylets Kit (FO-Kit) that includes a mouse fiber optic stylet (FOS-400, 400µm core diameter), a small rat fiber optic stylet (FOS-600), a big rat fiber optic stylet (FOS-800), and a fiber optic illuminator (FO-Light).

MODEL	DESCRIPTION
MI-Kit	Mouse Kit for Mice 10+ grams (includes 1 FOS-400, 1 FO-Light, 1 LIB-03, and 1 ETT-20-05)
SR-Kit	Small Rat Kit for Rats 100-200 grams (includes 1 FOS-600, 1 FO-Light, 1 LIB-03, and 1 ETT-16-05)
LR-Kit	Large Rat Kit for Rats 200+ grams (includes 1 FOS-800, 1 FO-Light, 1 LIB-03, and 1 ETT-16-05)
FO-Kit	Stylets Kit (includes 1 FOS-400, 1 FOS-600, 1 FOS-800, and 1 FO-Light)
CO-Kit	Complete Kit (includes 1 FO-Kit, 1 LIB-03, 1 ETT-16-05, and 1 ETT-20-05)

Replacement parts available online at [braintreesci.com](http://braintreesci.com)

## Intubation Packs



For use in conjunction with the Rodent WorkStand. The intubation packs, a rat pack and a mouse pack, hold everything needed to directly visualize and quickly intubate with a minimum amount of trauma. Each pack is

designed to hold all tools and supplies needed to perform quick, efficient and minimally traumatic orotracheal intubation of small rodents.

Intubation packs include specially designed and molded, autoclavable intubation speculum, lidocaine applicator, endotracheal tube guide wire, incisor loop and a brief video tutorial of how to perform intubations. Rat Pack also contains scissors, umbilical tape, and mirror for the verification of tracheal intubation. Mouse pack includes two sizes of Hollowell's mouse endotracheal tubes.

Packaged neatly and conveniently in a 13" x 8" x 2" polypropylene organizer box with each compartment labeled for contents and reordering information. Can be stored most anywhere and always ready for use.

MODEL	DESCRIPTION
RW-A3746	Rat Intubation Pack
RW-A3747	Mouse Intubation Pack
RW-A3748	MDS Otoscope - not rechargeable. Uses standard, replaceable NICAD batteries.
RW-A3749	Welch Allyn NICAD Otoscope - rechargeable. Includes charger
RW-A3754	Welch Allyn LI ION Otoscope lighter and brighter- rechargeable. Includes charger

Replacement parts available online at [braintreesci.com](http://braintreesci.com)





### New! Mouse Irradiation Chamber

- ▶ 1/8" (3.2mm) clear acrylic
- ▶ Flip-top lid for easy loading and unloading
- ▶ Perforated top allows air to circulate throughout unit
- ▶ Top incorporates a slot for filter material to improve contamination control
- ▶ Non-skid feet prevent unit from slipping and sliding
- ▶ 6" Dia. x 2" H/15.24cm Dia. x 5.08cm H



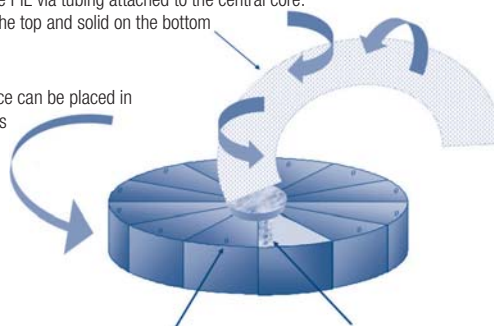
MODEL	DESCRIPTION
AK-MIC	Mouse Irradiation Chamber

### Modified Pie Cage

#### to accept aerosol delivery

Aerosol enters the PIE via tubing attached to the central core. Core is open on the top and solid on the bottom

PIE rotates so mice can be placed in individual sections



Aerosol exits each PIE section through one 3mm hole in the center of the outer edge

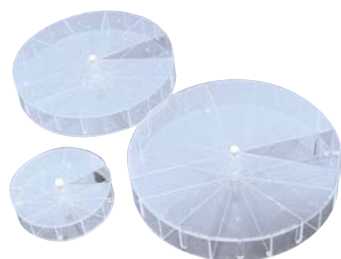
Aerosol is distributed to each PIE section via five 3mm holes

MODEL	DESCRIPTION
MPC-AERO	Mouse Aerosol Cage
RPC-1-AERO	Small Rat Aerosol Cage, 41cm dia, 6.75cm height
RPC-2-AERO	Large Rat Aerosol Cage, 46cm dia, 8cm height

Rat aerosol cages available, call for details and pricing

### Rat and Mouse Pie Cages

#### Cages are easy to clean and to use



Circular cages hold up to 11 rodents for whole body irradiation. Notched removable lid can be dialed to any of the ventilated pie-shaped chambers. Also use for temporary transport or storage of animals for acute studies. The rat cages have tail slots for intravenous dosing.

MODEL	DESCRIPTION
MPC-1	Mouse Pie Cage: Unit dimensions: 21.5cm dia, 7.5cm height; Individual chambers feature 5cm base and 9cm length
MPC-2	Mouse Pie Cage with filter top and filter
MPC-W	Mouse Pie Wedge, single slice with sliding cover
MP-FLT	Replacement Filter
RPC-1	Small Rat Pie Cage Unit dimensions: 41cm dia, 6.75cm height Individual chambers: 10cm (base), 18cm (length)
RPC-2	Large Rat Pie Cage Unit dimensions: 46cm dia, 8cm height Individual chambers: 11.5cm (base), 20cm (length)

### Rad Disk™ and Rad Disk Mini™ Polycarbonate Rodent Microisolation Irradiator Cages

#### New for 2013 Imbedded Jump Guard™



#### Protection for Irradiated

**Animals:** Because Rad Disk™ and Rad Disk Mini™ are made entirely of polycarbonate plastic, it is autoclavable. The two cage sizes are designed to fit into radiation chambers 5" high and 9" diameter and larger. Used as instructed, Rad Disk™ and Rad Disk Mini™ prevent contamination of mice before,

during and after irradiation. They are also a versatile carrier to protect rodents while transporting them in and out of facilities.

**Cage Divider System:** Rad Disk and Rad Disk Mini include a polycarbonate removable divider system which divides cages into four to eight compartments for irradiation. Used without dividers, mice can also free range which allows greater uniformity of dose delivery during irradiation.

**Imbedded Jump Guard™:** Rad Disk and Rad Disk Mini include a polycarbonate piehole cutout cover that can be easily rotated over each divided chamber to insert rodents and prevent escape or jump to adjacent chambers.

**Protection from Contamination:** Rad Disk and Rad Disk Mini are autoclavable with lid in place. Within a changing hood, animals are transferred from their housing into sterile protective environment of Rad Disk and Rad Disk Mini, using standard microisolation techniques. Lid contains a 3-ply filter which can be used up to 6 months, or 12 autoclave cycles. Lid has aligned air holes through which potential airborne contaminants are trapped on exterior of filter. After transferring animals into Rad Disk and Rad Disk Mini, animals can be transported to the radiation source, even if traveling through a contaminated environment.

**Sterile Transportation:** After irradiation at location outside of the animal facility, Rad Disk and Rad Disk Mini containing animals are prepared for re-entry into animal facility by placing a strip of plastic tape over each aligned row of airholes, completely sealing lid and allowing for liquid sterilization of exterior of cage prior to facility re-entry (check with facility management for SOP which may vary from institution to institution). Once decontaminated, taped cage can be taken to the sterile or clean change station, and animals may then be transferred back to their original or new cages. Tape can be removed from lid after transporting cage to wash area for reprocessing. Any contaminants are trapped on outside of filter between airholes and lid, so leaving tape in place prevents exposure to facility environment.

Rad Disk and Rad Disk Mini are easy to clean, store, and sterilize for use.

MODEL	DESCRIPTION
IRD-P-M	Mouse Irradiator Cage with Divider (polycarbonate) 8.875" dia x 3.875"H
IRD-P-R	Rat Irradiator Cage with Divider (polycarbonate) 10.75" dia x 4"H
RD-FLT-M	Mouse Irradiator Cage Replacement Filter
IRD-FLT-R	Rat Irradiator Cage Replacement Filter

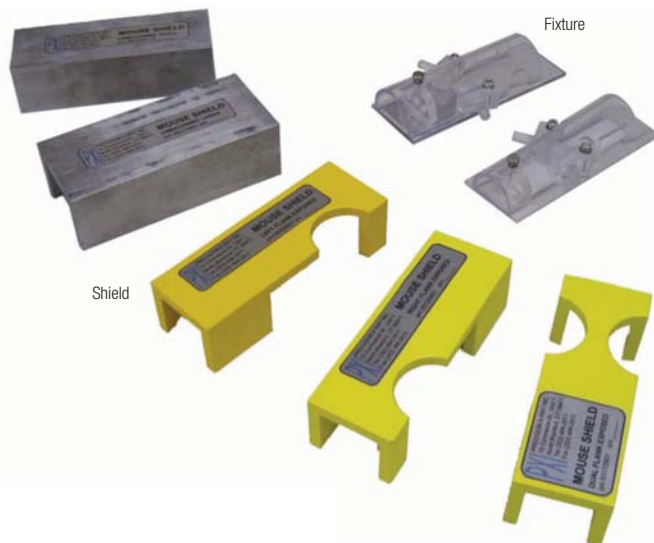


## Irradiation

### Mouse Fixtures and Shields

#### Partial Body Irradiation Fixtures and Shields

Standard holding fixtures and corresponding lead shield for mice. Can be purchased separately or as a set.



#### Size 1 (<25G Mice) Fixture Body Diameter is 1" (25mm)

MODEL	CONFIGURATION
MHS1-LF	Left Flank Fixture and Shield
04240802	Left Flank Fixture only
06050801	Left Flank Shield only
MHS1-RF	Right Flank Fixture and Shield
05140805	Right Flank Fixture only
05120901	Right Flank Shield only
MHS1-DF	Dual Flank Fixture and Shield
05140803	Dual Flank Fixture only
03170901	Dual Flank Shield only
MHS1-NF	No Flank Fixture and Shield
04240800	No Flank Fixture only
05120801	No Flank Shield (blank) only

#### Size 2 Fixture Body Diameter is 1.375" (35mm)

MODEL	CONFIGURATION
MHS2-LF	Left Flank Fixture and Shield
07030802	Left Flank Fixture only
05120904	Left Flank Shield only
MHS2-RF	Right Flank Fixture and Shield
07030804	Right Flank Fixture only
05120905	Right Flank Shield only
MHS2-DF	Dual Flank Fixture and Shield
07030806	Dual Flank Fixture only
05120906	Dual Flank Shield only
MHS2-NF	No Flank Fixture and Shield
07030803	No Flank Fixture only
05120903	No Flank Shield (blank) only



## Intensive Care Units

### Canister Humidifier

Allows approximately 2-3 hours of oxygen therapy and should be filled with distilled water.

#### Includes:

- ▶ Plastic collar
- ▶ White nipple connector with cap
- ▶ 7' crush proof O<sub>2</sub> tubing to canister
- ▶ Chrome DISS at top of canister
- ▶ 7' crush proof O<sub>2</sub> tubing from canister to O<sub>2</sub> source



Modified Mouse Pie Cage sold separately

MODEL	DESCRIPTION
HUM-CAN	Canister Humidifier

### Canister Nebulizer

Canister nebulizer with a dial on the top. Allows approximately 2 hours of therapy. Nebulization does not require oxygen (compressed air is sufficient). Use of distilled water is suggested rather than risk particulate from tap water.

#### Includes:

- ▶ Blue hose
- ▶ Canister nebulizer
- ▶ Chrome DISS fitting at top of canister
- ▶ 7' crush proof O<sub>2</sub> tubing from chrome fitting to air compressor and Schuco air compressor



Modified Mouse Pie Cage sold separately

MODEL	DESCRIPTION
NEB-CAN	Canister Nebulizer

### 9cc Medication Nebulizer

Pour in whatever dosage of liquid medicine, top off with distilled water. Approximately 20-30 minute treatment. Nebulization does not require oxygen.

#### Includes:

- ▶ Hospital grade Schuco air compressor
- ▶ Blue top medication nebulizer
- ▶ Plastic collar
- ▶ 7' crush proof O<sub>2</sub> tubing to air compressor
- ▶ White elbow hose connector



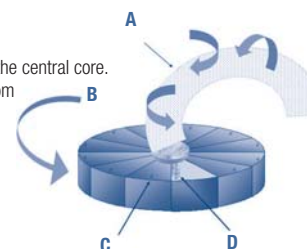
Modified Mouse Pie Cage sold separately

MODEL	DESCRIPTION
NEB-MED	9cc Medication Nebulizer

### Modified Pie Cage

#### to accept aerosol delivery

- Aerosol enters the PIE via tubing attached to the central core. Core is open on the top and solid on the bottom
- PIE rotates so mice can be placed in individual sections
- Aerosol exits each PIE section through one 3mm hole in the center of the outer edge
- Aerosol is distributed to each PIE section via five 3mm holes



MODEL	DESCRIPTION
MPC-AERO	Mouse Aerosol Cage
RPC-1-AERO	Small Rat Aerosol Cage, 41cm dia, 6.75cm height
RPC-2-AERO	Large Rat Aerosol Cage, 46cm dia, 8cm height







## Thermocare® Intensive Care Units

The Thermocare water-jacketed warmer base is made of heavy gauge fire retardant plastic. The UL and CSA approved heater maintains the temperature of the water accurately through resistance heating controlled thermostatically with a direct water-contact sensor. Creates a natural thermal convection current within the walls of the unit and the heat is radiated to ensure a constant, sustainable temperature within a safe therapeutic range of 75°-100°F wherever the patient lies. This combination of radiant heat and convection currents preclude the use of a pump, fan, or motor which may spark and ignite with the use of oxygen.

Uniform temperature is achieved without "hot spots" and "safe heat" is assured because the animal is surrounded by comforting warmth, just like a "hot water bottle", making Thermocare Warmers a critical part of recovery for reptiles, rodents and animals. Vents on the top of the heated or unheated covered units allow warm air to rise and escape with any carbon dioxide build up. It is the combination of therapeutic heat with respiratory therapy that creates a stand-alone ICU (Intensive Care Unit). For example, with the addition of a cover (domed or flat — which allows respiratory therapy) the Thermocare Warmer becomes an ICU.

To meet your specific needs, ThermoCare® offers a wide selection of intensive care units:

### Intensive Care Unit with Dome Cover

ThermoCare's Intensive Care Units (ICUs) allow a full latitude of respiratory therapeutic procedures, including administering oxygen, humidity and nebulization in combination with heat. Units accommodate animals up to 20 pounds (small size) or up to 80 pounds (medium/large sizes). The optional perch facilitates treatment for birds.



#### Specifications:

**Small:** 22.25"L x 15.5"W x 14.75"H

**Medium:** 31"L x 25"W x 24"H

**Large:** 39.75"L x 25"W x 24"H

Dome covered units include:

- ▶ Water conditioner
- ▶ Water level gauge
- ▶ Spin/venting handport covers
- ▶ Humidiguide (temperature/humidity gauges).

Accessories include 2 nebulizers, humidifier, O<sub>2</sub> tubing, hose fittings and hose connectors.

MODEL	DESCRIPTION	SIZE
DW-1	ICU with Dome Cover and accessories . . . . .	Small
DW-2	ICU with Dome Cover and accessories . . . . .	Medium
DW-3	ICU with Dome Cover and accessories . . . . .	Large

### Intensive Care Unit with Flat Cover

This Intensive Care Unit (ICU) has been named by researchers as the "rodent recovery cage," also great for small birds, reptiles, eggs, and newborns.

#### Specifications:

**Small:** 22.25"L x 15.5"W x 6.5"H

**Medium:** 31"L x 25"W x 12.25"H

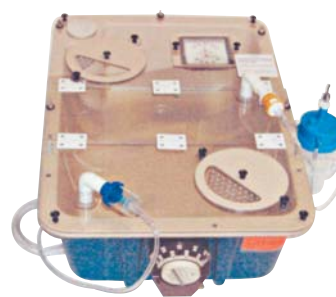
**Large:** 39.25"L x 25"W x 12.25"H

Flat covered warmers include:

- ▶ Water conditioner
- ▶ Digital thermostat
- ▶ Water level gauge to monitor water level within the warmer
- ▶ Spin/venting handport covers
- ▶ Humidiguide (temperature/humidity gauges)
- ▶ Divider

Accessories include 2 nebulizers, humidifier, O<sub>2</sub> tubing, hose fittings and hose connectors.

MODEL	DESCRIPTION	SIZE
FW-1	ICU with Flat Cover and accessories . . . . .	Small
FW-2	ICU with Flat Cover and accessories . . . . .	Medium
FW-3	ICU with Flat Cover and accessories . . . . .	Large



### Unheated Nebulizer/O<sub>2</sub> Therapy Cage

An economical alternative to heated units, this unit will fill the need for an affordable means to administer humidity, oxygen, medicated nebulization treatments and/or treat respiratory stress in the care of animals and birds. Unit is easy to assemble, clean, and operate, and is recommended for in-home care of chronic conditions that require respiratory therapy.



All unheated therapy units include: Swing-away dual venting and handport covers to discourage buildup of heat, humidity, or CO<sub>2</sub> and provide easy access to animal patient. Patients may be viewed through the windows and door grill, which has a removable clear plastic door.

#### Specifications:

**Small:** 27.75"L x 19.5"W x 20.25"H

**Medium:** 32.25"L x 22.25"W x 23.25"H

**Large:** 36.5"L x 25.5"W x 26.75"H

Accessories include canister nebulizer, medication nebulizer, humidifier, temperature/humidity gauge, O<sub>2</sub> hose fittings, hose connectors, tubing and removable floor matting.

MODEL	DESCRIPTION	SIZE
NTC-2	Unheated Nebulizer/O <sub>2</sub> Therapy Cage with accessories . . .	Small
NTC-3	Unheated Nebulizer/O <sub>2</sub> Therapy Cage with accessories . . .	Medium
NTC-4	Unheated Nebulizer/O <sub>2</sub> Therapy Cage with accessories . . .	Large



## Transport Cages

### Emergency preparedness with disposable cages

*All Innovive cages are BPA-FREE*



Both equipment failure and a natural disaster can be dealt with efficiently and safely using the Innovive disposable irradiated Innocage® Static rodent cages and pre-filled Aquavive® water bottles.

The Innovive disposable rodent caging disaster recovery and emergency planning solution allows user to:

- ▶ Maintain animals' change-out schedule with a supply of fresh irradiated static cages on schedule
- ▶ Provide a clean water supply to mice with pre-filled water bottles quickly and easily in any location
- ▶ Quickly evacuate IVC racks to a new lab location

Maximize storage space: Innovive disposable rodent cages and water pack densely; they arrive double-bagged, irradiated and boxed for easy storage and can be accessed as needed.

#### Static Disposable Cages



All Innovive static mouse cage lids fit the universal cage bottom, which provides 81" of floor space and 5" of headroom. All Innovive static mouse cage lids are delivered double-bagged and irradiated - 100 units per box. Innovive static rodent cages are designed for stand-alone use, no ventilated rack required.

#### Innocage® Static Mouse

##### Specifications:

**Dimensions:** 14.7" D x 9.2" W x 5.5" H

**Uses:** Universal

**Cage size:** 8.8 oz

**Capacity:** 1.9 oz food tray

- ▶ **Static Lid:** Innovive disposable static cage is designed specifically for static rodent housing for mice; it is also an excellent resource for your Emergency Preparedness Plan
- ▶ **Water:** Aquavive Mouse bottle (empty or pre-filled), autowatering, and water pouches
- ▶ **Food Tray:** Standard, stainless steel or all plastic

#### Disposable Cages for Rodent Transportation

The Innovive disposable transportation cage allows transportation of mice in the same cage that they are housed with a simple change of the lid, reducing animals' disturbance with a simple change of the lid.

##### Rodent Transportation Challenges

- ▶ Maintaining a low-stress and healthy environment for animals during long- and short-haul transportation
- ▶ Discrete and secure rodent caging
- ▶ Cost-effective transportation solution

##### Advantages of Innovive Transportation

- ▶ Healthy air for the trip of any length: large top filters provide excellent intracage airflow, which allows 5 mice to be housed in the Innocage up to 7 days
- ▶ Secure transport cage for mice: the cage's snap top secures animals during the trip
- ▶ No water or food tray needed: simply add a gel pouch and animals are ready to go
- ▶ Disposable caging is a cost-effective solution: remove the need to track, return and/or replace expensive traditional rodent cages

#### Innocage® Transport Mouse



**Transport Lid** - Whether moving animals a short or long distance, the Innocage Transport is a great solution. Simply replace an IVC lid with a transport lid to prepare the animals for relocation. Maintain a complete stock of transport cages for distributing animals from a breeding operation to primary housing areas.

#### Accessories



Mouse water bottle



Mouse Feeder



Card Holder

MODEL	DESCRIPTION	QTY
MS2	Innocage Static Mouse (top and bottom) . . . . .	100
MS2-C8	Innocage Static Mouse, pre-bedded 0.125" Corn Cob (set) . . .	100
MS2-AD	Innocage Static Mouse, pre-bedded Alpha Dri (set) . . . . .	100
MS4	Innocage Transport Mouse (top and bottom) . . . . .	100
MS4-C8	Innocage Transport Mouse, pre-bedded 0.125" Corn Cob (set) . .	100
MS4-AD	Innocage Transport Mouse, pre-bedded Alpha Dri (set) . . . . .	100
M-BTM	Innocage Mouse, bottom only . . . . .	100
M-BTM-C8	Innocage Mouse, bottom only, pre-bedded 0.125" Corn Cob . .	100
M-BTM-AD	Innocage Mouse, bottom only, pre-bedded Alpha Dri . . . . .	100
M-FEED	Mouse Feeder, extended-use (standard) . . . . .	100
M-FEED-SS	Mouse Feeder, extended-use (stainless steel) . . . . .	100
M-FEED-P	Mouse Feeder, extended-use (plastic) . . . . .	100
M-WB-300	Aquavive Mouse Water Bottle empty . . . . .	100
CRD-HLD-U	Card Holder . . . . .	100



## Deltaphase® Isothermal Pad

**Maintains animals or cultures at 37°C for hours.  
Ideal for NMR!**



Based on fundamental thermodynamics, completely safe even with flammable gases. Uses no electricity, wires, or control box. Reusable.

### Why you need them

Normal biochemical functions are based on the temperature of 37°C. In conscious animals, core temperature is maintained. During anesthesia, body temperature falls. Normal chemistry is disturbed, surgical tolerance is reduced, and recovery is slow.

Studies of mammalian cell biology are conducted at 37°C. in expensive incubators in order to maintain normal function. However, the manipulation of cultures in a clean hood or on the bench top almost always leads to significant cooling. At the least, this results in the displacement of growth curves. At worst it can lead to significant cell mortality.

To maintain temperature during experimental procedures, many methods are used. Coverings help, but are impractical during most procedures and cannot replace heat already lost. Electrical heaters must be carefully monitored to prevent overheating or oscillation. Electrical devices often interfere with recording equipment. They are a shock hazard in the presence of urine, blood, or culture media, and the spark of a thermostat might ignite a flammable anesthetic or solvent.

The Deltaphase Isothermal Pad is a unique approach to temperature stabilization. It is a source of heat which cannot overheat once it enters its phase change. It is economical in that it needs no tubes, wires or electricity. It is also safer than other devices because it needs no thermostat or controller and does not generate electrical signals. But it can maintain a small animal or a culture bottle at near normal and constant temperature for several hours.

The concept of the Deltaphase Isothermal Pad is derived from the basic thermodynamic principle that a phase change occurs at constant temperature.

A unique chemical solution, contained within a durable pouch, is in solid form at room temperature. When heated, the solution becomes fluid and the pad is ready to use.

When an animal or container is placed in contact with an activated pad, heat is transferred and the solution slowly undergoes a phase change. During this change, over 30 calories are available per gram of solution and the temperature remains constant. The pad remains isothermal until all of the liquid phase has solidified.

Experimental studies have shown that the pad temperature of 39°C is ideal for maintaining animal or cultures at 37°C. If desired, one or more pads may be placed within a foam box to create a bench top or portable incubator.

### Laboratory Evaluation

Rectal temperatures of two rats during six-hour experiment. (Animal weights 350g room temperature 24.5°C.) Animal on Deltaphase Isothermal Pad maintained near normal temperature for more than three hours.

The Deltaphase Isothermal Pad has been evaluated by researchers at a major medical center. Anesthetized rats (pentobarbital 45mg/kg) were placed on either an operating table or a Deltaphase Pad, and rectal temperature was monitored for six hours. The temperature of the rats on the conventional table fell rapidly and stabilized only near 30°C when pronounced shivering began. The rats on Deltaphase Isothermal Pad maintained body temperature near a constant 37°C for 4 hours. Each pad measures 8" x 8" x 0.75".

MODEL	DESCRIPTION
39 DP	3 Deltaphase Pads and 3 Insulators (board not included)

*Need a custom size Deltaphase Pad? Fax details to 781-843-7932*

## Deltaphase® Operating Board



This compact operating board takes advantage of the Deltaphase principle to maintain animal body temperature during surgical or experimental procedures. An 8.5" square stainless steel operating surface lies in contact with an activated Deltaphase isothermal pad. The underside of the pad is insulated to provide a longer isothermal period. Molded wells are provided for sponges, instruments and anesthetic apparatus.

This board was designed by research scientists to be functional, durable, and easy to clean. Its low cost and safety make it appropriate for use in student laboratories. The unit is supplied with two Deltaphase pads, each pad measures 8" x 8" x 0.75"

MODEL	DESCRIPTION
39 OP	Deltaphase Operating Board, 2 Deltaphase Pads and 2 Insulators
39 DP	3 Deltaphase Pads and 3 Insulators only (board not included)

*Instruments shown not included.*

## 6 Liter Water Bath

- ▶ Compact design
- ▶ Stainless steel gable cover and stainless steel, seamless chamber
- ▶ 550W heating power
- ▶ Pilot light to indicate heating



Solidly constructed with a stainless steel, seamless chamber that resists corrosion. A stainless gable cover minimizes evaporation. Optional non-toxic (non-mercury) thermometer clips onto gable cover for accurate temperature monitoring.

- ▶ Exterior dimensions 14" x 11" x 13" / 36 x 28 x 32cm
- ▶ Interior dimensions 12.6" x 6.7" x 6.9" / 32 x 17 x 18cm
- ▶ Weight 17 lbs / 7.7kg
- ▶ Chamber capacity 6 liter
- ▶ Temperature range ambient +5°C to 100°C

MODEL	DESCRIPTION
W1106	Mini Water Bath, 6 Liter with stainless steel gable cover and thermometer clip, 115V
W0020-110	Non-toxic, Teflon coated thermometer for -20° to 110°C, with 1C resolution, 305mm long, 76mm immersion

*Other voltages available upon request*

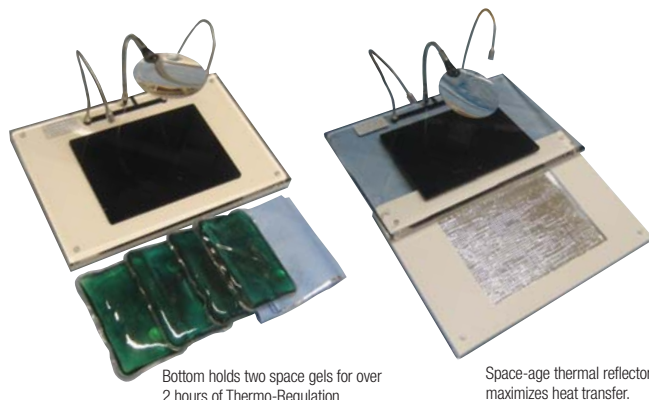




## Warming Pads

### Thermo Controlled Surgery Platform

*Easily maintain animal body temperature during surgery!*



Bottom holds two space gels for over 2 hours of Thermo-Regulation.

Space-age thermal reflector maximizes heat transfer.

- ▶ Two flexible LED lights provide direct illumination with no shadows and no heat
- ▶ Flex arm, non-obstructive rimless magnifying glass, 2.3 X main lens, 4.0 X inset lens. Allows continuous eye contact with object when moving into magnification area
- ▶ Limb restraints.
- ▶ 4 Space Gels for continuous heat or 2 Deltaphase® pads
- ▶ 2 Space Blankets to retain heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Non-skid feet for added stability
- ▶ Universal input power supply
- ▶ Size: 13.5" L x 9" W

MODEL	DESCRIPTION
ASS7T	Thermo Control Surgery Platform with Space Gels
SPGL-S	Space Gel Pad 4"x6"
SPGL-L	Space Gel Pad 5.5"x10"
SPDR	Space Drape 12"x 6", 2/pk
ASS7D	Thermo Control Surgery Platform with Deltaphase Pads
DPIP	Deltaphase Isothermal Pad, 6" x 7.5"

See microscope section for digital microscope attachments.

### SpaceDrapes™

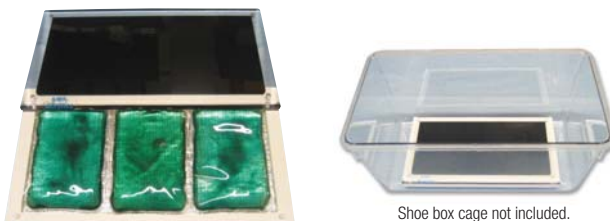


SpaceDrapes provide heat-retention capabilities while doubling as surgical drapes. They decrease recovery time and improve recovery prospect for animals that are under anesthesia by reducing radiant heat loss. They can be fenestrated and used as standard drapes. Available pre-packaged and pre-sterilized, or in rolls that can be sterilized by the user.

MODEL	DESCRIPTION
SPDR	Space Drape (12 x 16) Flat, 2/pk
SD-MPS	4" x 5" Mouse Pouches (1 sterilized package of 5 pouches)
SD-RPS	9" x 12" Rat Pouches (1 sterilized package of 5 pouches)
SD-RNS	12" Roll (non-sterile, 100')

### Thermo Controlled Recovery Pad

*Animal recovery made simple and easy!*



Shoe box cage not included.

Place animal on pad for recovery. Recovery pad will provide over 2 hours of Thermo-Regulation.

- ▶ Convenient size 13.5" L x 7.5" W
- ▶ 6 space gels for continuous heat
- ▶ 4 space blankets to retain heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Non-skid feet for added stability
- ▶ Fits into a standard 18" L x 9" W

#### Ultra-Safe Thermo Regulation:

- ▶ Will not over heat or burn animal
- ▶ No electricity used

MODEL	DESCRIPTION
TCRP	Thermo Control Recovery Pad (shoe box cage not included)

### SpaceGels™



SpaceGels heating pads are formed by sealing a super-saturated liquid solution in a pouch similar to an IV bag. The pouch also contains a small metal activator disc. When the disc is flexed, the solution "freezes" and solidifies, giving off heat in the process. The

heating pads reach a maximum temperature of about 130°F. Because the heating process is physical, not chemical, the pouches can be reused several hundred times. To reset a SpaceGel heating pad, simply heat through steaming or boiling until all crystals have dissolved. Once cooled, it can be reactivated and used again.

SpaceGels have many uses. A SpaceGel can be placed between a cage containing a recovering animal and the table to provide heat during recovery. Small animals can be placed on the heating pads with some sort of barrier (towel, cloth, etc.) A SpaceGel can be wrapped and placed on a part of the animal to be warmed, or on the arteries if warming a large animal.

MODEL	DESCRIPTION
SPGL-S	Space Gel Pad 4" x 6"
SPGL-L	Space Gel Pad 5.5" x 10"

### Gel Pad Reactivation Unit

Small size is ideal for lab bench 12" L x 10" W x 8.5" H. Easily reactivate four gel pads in a single run. Place in chamber, start, remove pads after 15 minutes. Safe and easy to operate.

MODEL	DESCRIPTION
GPRU	Gel Pad Activation Unit



# Temperature Control



## Water Heated Hard Pads

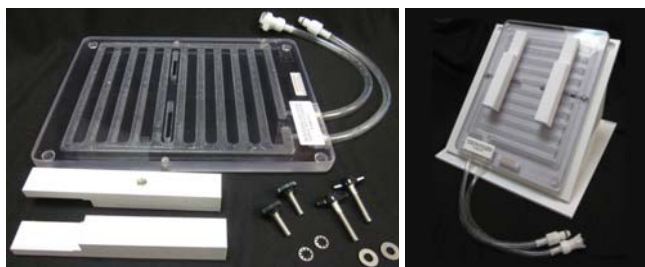
*Connects to Gaymar, Hamilton and other pumps*



Durable polycarbonate construction. Scalpel, needle, and towel clamp proof. Smooth surfaces are easy to clean helping to prevent nosocomial infection. Highly puncture resistant.

MODEL	DESCRIPTION
HHP-05	6"W x 8"D Heated Hard Pad
HHP-1	9"W x 12"D Heated Hard Pad
HHP-2	15"W x 24"D Heated Hard Pad
HHP-3	21"W x 24"D Heated Hard Pad
HHP-ADP-G	Adapter to connect to Gaymar Pump
HHP-ADP-A	Adapter to connect to Adroit Pump

## New! Heated Work Stand Kit



Heated hard pad kit converts user's workstand into a heated workstand. Unit installs quite easily and can be ready for use in minutes with users existing or new Rodent Work Stand and circulating pump. Unit is also designed to be used as a stand-alone heated hard pad. Product is a great versatile addition.

MODEL	DESCRIPTION
RW-HHP	Heated Rodent Work Stand Kit

## Rodent Work Stand

Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position.



MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand

## T/Pump®

The T/Pump® system provides safe and effective core body warming and cooling therapy with precise temperature control. It helps prevent body heat loss and hypothermia during surgery and recovery. Cooling setting delivers 50°F (10°C) therapy.

- For warming therapy, two selections are available: low (100°F/38°C) or high (107°F/42°C)
- Three-layer safety system with dual temperature sensors, dual microprocessors and a mechanical thermostat to ensure patient safety
- Illuminated LED control panel, comfortable handle, built-in hose, cord storage and translucent water reservoir designed for ease of use
- Uses tap water (and ice cubes if cooling)



MODEL	DESCRIPTION
TP-700	Gaymar Heating/Cooling Water Pump
TP-D22C	Gaymar Multi-T Pad, 15" x 22" Single Patient, each
TP-R22G	Multi-T Pad, 15" x 22" Reusable, each
TP-D3E	Multi-T Pad, 3" x 23" Single Patient. 10/case
TP-D12E	Multi-T Pad, 13" x 18" Single Patient, 10/case

## Heat Therapy Pump

The safest and most accurate localized heat therapy system available. Bright and easy-to-read display provides continuous real-time temperature readings. Digital controller uses proprietary software to manage users prescribed set-point temperature to within 1°F. Three temperature safety limits guard against possibility of overheating and Hi Limit Switches can be tested without taking unit apart!

### Specifications

**Set-point range:** 75°F (Off) to 107°F

**Set-point accuracy:** 0.5°F

**Flow rate:** ≥15gph

**Reservoir:** 50 oz (1,500 ml)

**Approvals:** µL 2601, CSA C22.2  
No. 601-1 51DF

- Mercury free!
- Uses tap water



MODEL	DESCRIPTION	UNITS
HTP-1500	Heat Therapy Pump	—
AP-D22C	Single Patient Pad, 15" X 22"	20/case
AP-D26E	Single Patient Pad, 18" X 26"	20/case
AP-D3E	Single Patient Pad, 3" x 23"	20/case
AP-R22G	Reusable Pad, 15" x 22"	20/case

*Accessories: rolling stand, bed bracket and temperature/flow rate tester available call for pricing.*

**Other models available online. Please visit [www.braintreesci.com](http://www.braintreesci.com) for details and pricing.**



# Temperature Control

## TCAT-2 Temperature Controller



Our new TCAT-2 general purpose PID autotuning controller provides accurate temperature control in a variety of laboratory applications. Combined with a heat lamp or heating pad, the TCAT-2 may be used to maintain the body temperature of anesthetized animals during surgery or stereotaxic procedures. Small animal cages are easily warmed with a heat lamp. The TCAT-2 may also be used in cooling applications, such as to control independent perfusate cooling systems.

Realizing that laboratory applications are diverse, TCAT Controller is provided in several versions. The model specified depends upon whether a laboratory has a general or specific need for the controller.

MODEL	DESCRIPTION
TCAT-2AC	Controls AC only powered heating or cooling devices such as a heat lamp.
TCAT-2LV	Provides low voltage DC output for electrically sensitive applications where AC frequencies might interfere with other monitoring devices. Includes built in DC power.
TCAT-2DF	Includes both AC outlet for controlling primarily resistance loads such as heat lamps, AC powered warming blankets and a low-voltage, low noise, DC output for heating pads. Allows user to control a variety of different loads.

*All TCAT-2 versions may be used with any of our extensive line of accurate Type T thermocouple probes, which act as the temperature feedback sensor. Most commonly used are the RET series of animal rectal probes, but the IT series of implantable flexible probes and MT series of needle probes may also be used depending upon the specific application. All instruments are designed to operate on a 110V or 230V AC supply.*

### Heat Lamp

Optional infrared heat lamp is table mounted with a standard "u" screw clamp that expands to fit tables up to 2.25" deep. An 18" adjustable swing arm provides easy adjustment of radiant heat to specimen. The lamp is supplied with a 250w (infrared) heat lamp bulb and a built in reflector. A chrome bulb guard is also provided and easily snaps onto the lamp housing after the bulb is installed. Fits standard 110v AC socket. Power: 10 watts.

MODEL	DESCRIPTION
HL-1	Heat Lamp
HP	Heat Plate

**Other models available online. Please visit [www.braintreesci.com](http://www.braintreesci.com) for details and pricing.**

## Thermalert Monitoring Thermometer

- ▶ Large digital display - Reads to 0.1°C in clinical range 25-45°C
- ▶ High stability - no calibration necessary
- ▶ Safe, low voltage battery operation
- ▶ Long battery life - 1200 hours

This economical, easy to use thermometer is intended for continuous monitoring in the laboratory. The digital display reads to 0.1°C. For safety, the unit is battery operated. Batteries last for 1200 hours. A variety of fast reading microprobes and special animal probes are available for the TH-5. TH-5 can be supplied with analog output for lab applications where strip chart recording is needed.



### Specifications:

**Temperature range:** 25 to 45°C

**Resolution:** 0.1°C

**Instrument accuracy:** 0.1°C ± 1 digit

**Calibration:** Conforms to National Bureau of Standards tables Monograph 125

**Readout:** 0.5" liquid crystal

**Batteries:** 4 "C" cells

**Battery life:** 1200 hours continuous

**Analog output:** Available at extra cost. Approx. 10mV per °C

MODEL	DESCRIPTION
TH-5	Thermalert Monitoring Thermometer
TH-5A	Thermalert Monitoring Thermometer with analog output
TT-S-5	Thermalert Stand

## MicroTherma 2T



The MicroTherma 2T is compact, easy to operate and reliable. The popular MicroTherma Series makes use of a unique line of high-precision type T thermocouples. The combined result provides the best accuracy available in handheld thermocouple measurements. Self-diagnostic recalibration takes place each time the meter is powered on.

Each time the user checks the calibration of MicroTherma against an external standard, finding will be within spec – no adjustments required.

Each MicroTherma includes a traceable calibration certificate with actual test data. Although the

precision thermocouples provide the best possible accuracy for interchangeable probes, the MicroTherma also allows a "system-cal" adjustment to offset any probe errors. Choose probes from our broad line of type T thermocouples.

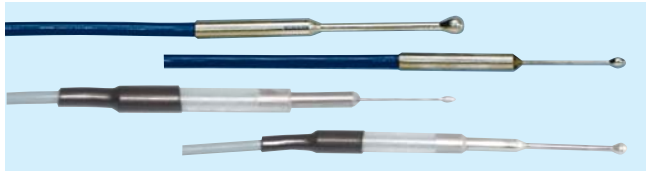
- ▶ Accepts type T thermocouples
- ▶ ±0.2°C meter accuracy
- ▶ Self-calibrating circuitry
- ▶ Includes hold, max and min functions switchable °C or °F

MODEL	DESCRIPTION
TW2-193	Microtherma 2 Type "T" Thermometer
TW2-205	Protective PVC Boot
TW2-100	Small Attache Case, fits 1-2 probes





## Animal Rectal Probes



For fast intermittent measurements. Smooth ball tip. Stainless steel shaft. The isolated sensor can be used with monitoring equipment where electrical interference from other electrodes may be present. Reinforced strain relief for applications where probe is in more frequent use. Smooth ball tip, 1" long stainless steel shaft, 0.059" dia. 0.125" tip diameter, 5' lead length. Time constant 0.8 secs.

The RET-4 rectal probe is for very small animals (neonatal mice). Flexible polyurethane sheath with smooth rounded tip. 36" long (can be made longer). Outside diameter nominal 0.032" (max at tip 0.04"). Time constant 0.18 seconds. Max temp. 140°C. May be sterilized by Gas (ETO), glutaraldehyde solution or autoclave.

MODEL	DESCRIPTION
RET-2	Rectal Probe for Rats - 1" long, 0.59" dia., 0.125" tip dia.
RET-3	Rectal Probe for Mice - 0.75" long, 0.028" dia., 0.065" tip dia.
RET-4	Rectal Probe for Very Small Animals (Neonatal Mice)
RET-2-ISO	Rectal Probe for Rats with isolated sensor
RET-3-ISO	Rectal Probe for Mice and Neonatal Rats with isolated sensor
DSP-1	Disposable probe sheaths, 1,000/pk

## Flexible Implantable Probes - IT Series

IT series flexible microprobes can be used for tissue implantation, measurement of small volume liquid samples, rectal temperatures in baby mice, etc. Totally sheathed in chemical resistant Teflon. Quite rugged. Max temp. 150°C. Isolated. Type # designates needle gauge. (Or one gauge smaller in thin wall).

MODEL	DESCRIPTION
IT-14	0.050" diameter, constant 0.3 seconds, 3' lead length
IT-18	0.025" diameter, constant 0.1 seconds, 3' lead length
IT-21	0.016" diameter, constant 0.08 seconds, 1' lead length
IT-23	For ultra fast measurements and use on micro-size specimens. Sensor lead only 0.009" dia. Tissue implantable with 23ga needle (supplied). Rather fragile. Max. temp. 150°C. Time constant 0.005 secs. 3' lead. Teflon coated, isolated.
IT-1E	IT-18 with sensor bead exposed. Combines the ultra-fast response of IT-23 with the Teflon sheath strength of IT-18. Time constant 0.005 seconds, isolated.

## Probe Wipes



Effective against a wide range of bacteria including "listeria" and "salmonella." Each wipe is pre-saturated with a broad spectrum anti-bacterial solution that is odorless and does not taint food. Single sachets are handy to carry and can be used by simply puncturing with your probe and running it back and forth. Mini tubs easily fit in a pocket or drawer. Large tubs are economical and can be mounted close to the point of usage.

MODEL	DESCRIPTION
836-200	Sachet, 6" x 7.5" wipe, carton of 100 wipes
836-022	Mini Tub, 2.75" x 5" wipe, single tub of 70 wipes
836-052	Large Tub, 5" x 5" wipe, single tub of 200 wipes

## New! Wessels Induction/Warming Chamber



Provides continuous heat to animals being anaesthetized before surgery or recovering from surgery.

- ▶ Quick warm up time
- ▶ Precision temp control
- ▶ Easy cleaning
- ▶ 10 minute set-up time
  1. Connect chamber to VE-100 controller
  2. Select cage plate temperature 102°F (39°C)
  3. Confirm cage plate temp with IR thermometer
  4. Place animal in chamber and monitor

**VE-100 Precision Temp Controller:** Allows user to set a precise cage plate temperature based on current laboratory conditions (room temp, etc.).

**Filter Top:** Allows animal to fully recover in chamber while unattended. Includes membrane for sealing filter top and outlet port to exhaust gas when used as an induction chamber.

**IR Thermometer:** Quickly determine cage plate temperature before and during recovery.

### Warming Chamber:

- ▶ Standard small shoe box cage, 7" x 11" x 5"
- ▶ Standard large shoe box cage, 10" x 19" x 8"
- ▶ Thermo probe imbedded in bottom of cage floor for accuracy
- ▶ Inlet port for gas anesthetic when used as an induction chamber
- ▶ Cage floor sealed from heating element  
Bedding or other material can be used in cage
- ▶ Quick pre-heating and continuous heating with 700 watt heating element
- ▶ Multiple chambers (up to 6) can be controlled by one VE-100 controller



MODEL	DESCRIPTION
WWCS	Small Induction/Warming Chamber Kit Includes: 1 small chamber, 1 filter top, VE-100 controller, IR thermometer and operating instructions
WWCL	Large Induction/Warming Chamber Kit Includes: 1 large chamber, 1 filter top, VE-100 controller, IR thermometer and operating instructions
WCS1	Small Induction/Warming Chamber Includes: 1 small chamber, 1 filter top
WCL2	Large Induction/Warming Chamber Includes: 1 large chamber, 1 filter top
FWCS	Replacement Filter for Small Top (5/pk)
FWCL	Replacement Filter for Large Top (5/pk)

**Other models available online. Please visit [www.braintreesci.com](http://www.braintreesci.com) for details and pricing.**



## Temperature Control

### **New!** Thermes Temperature Data Acquisition System

*Turns any PC into a precision thermometer*



- ▶ 1 to 7 channels
- ▶  $\pm 0.1^{\circ}\text{C}$  stability and clinical accuracy
- ▶  $0.01^{\circ}\text{C}$  resolution
- ▶ Reads up to 16 measurements per second
- ▶ Input isolation for low leakage
- ▶ Each unit accommodates up to seven type T thermocouple sensors
- ▶ Multiple Thermes units may be connected to the same computer for more thermocouple inputs
- ▶ High accuracy electronic cold junction compensation circuit maintains typical system accuracy of  $\pm 0.2^{\circ}\text{C}$  over an ambient temperature range of  $15\text{--}35^{\circ}\text{C}$ . Individual offsets may be added to each input in software to facilitate individual calibration of each channel

#### **Thermes USB System**

- ▶ USB system requires no internal connections to user's computer. Simply connects via an external USB port on laptop or desktop computer

#### **Thermes WFI System**

- ▶ Connect directly to a USB port (from which it also draws power) or wirelessly, positioned up to 100 feet from host computer
- ▶ Includes secure USB 2.4GHz wireless receiver and wall mounting USB power supply
- ▶ May be operated remotely with BP-1 battery pack

#### **OPT-1 Optical Link**

- ▶ 10 meter optical cable with built in transmitter and receiver allows Thermes USB to be operated in full optical isolation from host computer
- ▶ Medical grade isolated power supply is provided to power optical transmitter and Thermes data acquisition system when used with OPT-1 optical link cable

#### **BP-1 Li-Ion Battery Pack**

- ▶ Provides 16V, 19V or 5V DC output to run either Thermes or a laptop for an extended period of time
- ▶ 130 watt hours capacity allows Thermes to operate for up to 100 hours continuously without any additional power source. Operating time with a laptop will vary from 3-4 hours in addition to laptops fully charged normal running time
- ▶ May be used with the OPT-1, opto-isolator cable with adaptor cable
- ▶ Charge level LEDs indicate remaining battery life

### **Dasylab Operating Software**

- ▶ For users who already have Labview or Dasylab no additional software is necessary
- ▶ Recommended operating software is Dasylab Lite version 9.01, which provides all necessary functions to display and store temperature data in digital and graphical formats in real time. Users may customize the display to suit their particular application
- ▶ Dasylab Basic version provides additional features for data manipulation and statistical analysis

MODEL	DESCRIPTION
THR-USB	Thermes USB System with 3' USB cable
THR-WFI	Thermes WFI System with wireless gateway
THR-OPT-1	Optical Link Cable with built in transmitter/receiver
THR-BP-1	Thermes BP-1 Li-Ion Battery Pack
DASYLAB Lite	Dasylab Lite Software
DASYLAB Basic	Dasylab Basic Software

### **New!** Temperature Controlled Freezing Stage

Controller is designed around a new generation of switching power supplies which are smaller and lighter than the older BFS supplies. Supplies are overrated 100% to ensure cool operation and continuous service.



Safety features include over-temperature alarm with power shut down in event of inadequate flow of cooling water or overuse of the thaw feature.

- ▶ Frozen tissue sections from most microtomes
- ▶ Fast freezing preserves cell detail
- ▶ Freeze to temperatures as low as  $-40^{\circ}\text{C}$
- ▶ Temperature adjustable for optimum cutting
- ▶ Quick thaw for easy cleanup
- ▶ No  $\text{CO}_2$  needed-minimal cost to run

#### **Innovative New Stage Design**

An etched grid on top plate promotes better adhesion of frozen sample. Thinner stage design reduces need for a knife raising block. Waterways inside stage are redesigned to create a single passage to improve heat transfer and reduce potential for blockage. Single large peltier module results in uniform temperature across the entire surface of stage. Redesigned mounting hardware facilitates the direct attachment of blocks or posts to underside of stage and a new adapter plate system allows mounting on a variety of different microtomes.

#### **Safety Features:**

- ▶ Controller incorporates fan assisted internal cooling to maintain low internal component temperatures
- ▶ Continuous display of both set and run temperatures
- ▶ Simple digital temperature control set-up
- ▶ Auxiliary switched AC output for accessories
- ▶ P.I.D. microprocessor based temperature controller with autotuning feature and feedback sensor breakage alarm
- ▶ Adjustable feet provide convenient viewing angle for display

#### **Technical Features:**

- ▶ Temperature control to within  $0.5^{\circ}\text{C}$  in the range of  $-40^{\circ}\text{C}$  to ambient
- ▶ Thaw switch to quickly release frozen samples

MODEL	DESCRIPTION
BFS-40MP	Temperature Controlled Freezing Stage





## Infrared Thermometer

### Contactless (IR) temperature measurement for small rodents



The IR-B153 thermometer was designed to measure cutaneous temperature of small rodents very fast and contactless. IR-B153 thermometer focuses on optical dimension and the position of IR sensor in order to allow measurements on very small surfaces without allowing the sensor to get wrong values with integration of environment temperature, which can occur with other industrial type infrared thermometers. Allows easy measurements even on mice tails with high accuracy and repeatability. The cutaneous measurement should be correlated with usual rectal temperatures (see RET-2 and 3 rectal probes for rodents).



The IR-B153 thermometer is especially accurate on a temperature range from 25-40°C and will prove to be useful for other lab applications as well.

**Infrared temperature and guidelines:** Infrared temperature measurement consists in the detection of the quantity of light emitted by the measured object - the optical signal received by the sensor being then converted into an electrical signal. Instruments are equipped with a lens to concentrate the light on the sensor. This lense has different characteristics according to the object user wants to measure (diameter, focal length, viewing angle or distance ratio between the surface "seen" by lens and distance to the object).

User should also take into account the emissivity (or amount of emitted light) of the measured object. The focal specifications of typical general thermometers usually allow the measurement of objects from a minimum distance of 10-25mm with a minimum target size of 15mm and a distance ratio of 1:10, emissivity is generally fixed to 0.95. Such thermometers are unable to measure from <10mm from the object, and this measurement includes all points in a circle of 15mm of diameter. If object is situated 50cm away, the surface of measurement will have a diameter of 5cm. These dimensions are fully inadequate for cutaneous temperature measurements in rodents which is why IR-B153 is ideal for these procedures.

**Important notice:** Measurement taken in animal fur may include ambient air caught in hair, thus creating important measurement variations. It is therefore advisable to measure on naked surfaces, like skin, tail, nose, genital area.

#### Specifications:

**Room temperature:** 15-25°C

**Global measurement range:** -20°C - +200°C

**Resolution:** 0.1°C

**Distance ratio:** 1:1.5

**Accuracy:** 0.3°C from 25-40°C

**Minimum distance to object from:** 0mm

**Accuracy Outside of the 25-40°C Range:** 1% ± 1°C

**Minimum Measurement Size:** 3mm

**Other:** Emissivity fixed undisclosed value

MODEL	DESCRIPTION
IR-B153	Infrared Thermometer

## Pocket Infrared Thermometer

### The absolute best value in palm-sized IR thermometers

Professional 6:1 optics give a 1" measurement spot at a 6" distance. Many pocket units offer only 1:1 which means the user has to be nearly touching the surface for an accurate reading.



Fits comfortably in palm with trigger button on side. Simple mode button steps through Max, Min, C/F, and adjustable emissivity.

#### Includes:

- ▶ Infrared thermometer
- ▶ Neck lanyard
- ▶ 2 CR2032 batteries pre-installed
- ▶ User manual with certificate of conformance.

#### Specifications:

**Range:** -67 to 482°F (-55 to 250°C)

**Accuracy:** ±3.6°F (±2°C) ±2% of reading or, whichever is greater

**Resolution:** 0.1°F or °C to 199.9, 1° above

**Units:** Switchable °F to °C

**Response:** 1 second

**Distance/target:** 6:1 (1" target diameter at 6" distance)

**Emissivity:** Default 0.95, adjustable 0.05 to 1 in 0.01 increments

**Environmental range:** 32 to 122°F (0 to 50°C)

**Battery:** 2x CR2032 included, 40 hours

**Wavelength:** 5-14µm

**Dimensions:** 0.9" x 2" x 4" (22.5mm x 50mm x 103mm)

**Weight:** 2.3 oz. (65g) including battery

MODEL	DESCRIPTION
IR-TW2	Pocket Infrared Thermometer

## New! Close Focus Infrared Thermometer

- ▶ 0.7" (18mm) measurement distance
- ▶ 0.1" (2.5mm) spot size
- ▶ Dual laser
- ▶ Maximum temperature and hold features
- ▶ Easily switches from °C to °F
- ▶ Clock and chronograph
- ▶ Adjustable emissivity

Measure temperature precisely to 0.1" (2.5mm) with the CF-IR Close Focus Infrared Thermometer. Great for electronic components, laboratory measurements and research. Measures tiny areas with precision.

CF-IR multi-line display includes a real-time clock and measurement of ambient temperature for convenience. Other features include Min/Max, Hold, adjustable emissivity and built-in stop watch. Measure temperatures from - 67°F to 428°F at 0.7" (18mm) distance.



MODEL	DESCRIPTION
CF-IR	Close Focus Infrared Thermometer





## Animal ID Systems

### AIMS Neonate and General Rodent Tattoo Systems

*Simple, quick and easy permanent animal identification*



Convenient comprehensive kits for the humane tattoo identification of neonate or adult mice and rats. Each kit is provided with a comprehensive training guide and instruction DVD and all the tools needed to safely and efficiently tattoo rodents. AIMS tattooing techniques are performed on unanesthetized animals and produce easy-to-read permanent ID's. AIMS tattoo pigments and supplies have been used in the industry for over 25 years and have been demonstrated to be **safe** and **non-toxic**. Tattoo identification is cost effective with an average disposable cost of about 2¢ per neonate and 5¢ per adult rodent.

#### The NEO-9 Neonate Tattooing System

For tattooing P0-P15 neonate rodents of any color/strain.

##### Kit includes:

- ▶ Micro controller with HDUI power supply
- ▶ Foot pedal (on/off)
- ▶ Preset speeds
- ▶ Ultra light tattoo machine
- ▶ Non-skid machine platform with pigment holder
- ▶ Micro tattooing station (light, skin prep holder, 4x magnification)
- ▶ AIMS certified safe tattoo pigment
- ▶ AIMS skin prep (reduces fading)
- ▶ Standard/fine tip tattoo needles
- ▶ Finger guards
- ▶ Needle scanning scope
- ▶ Comprehensive DVD instructions
- ▶ Carrying case
- ▶ Detailed training guide provides step-by-step guidance and detailed illustrations on multiple ID schemes with large number ranges (>9,000).



Neonate tattoo identification is a practical and humane alternative to toe clipping (non-invasive). Toe tattoos allow user to use existing numbering system without removing the toe. Included supplies will tattoo 2000 neonates.

For additional supplies visit [braintreesci.com](http://braintreesci.com)

### The AIMS ATS-3 General Rodent Tattoo System



Supplies and accessories to tattoo 3000 weanling rodents and larger. The detailed training guide and instruction DVD provide step-by-step guidance with detailed illustrations. Use numbers, letters, lines, dots, and/or colors to permanently ID any color/strain mouse or rat.

##### Kit includes:

- ▶ AIMS standard tattoo machine with calibrated needle tube
- ▶ Micro controller with extended machine speed
- ▶ AIMS humane rapid mouse cup restraint system
- ▶ Tail tattoo reading light
- ▶ Certified safe/non toxic supplies and tattooing accessories
- ▶ 242B concentrated black pigment for C57 and B6 mice

Can be used for neonate rodent tattooing when purchased with the neonate accessory package.

##### Neonate accessory package includes:

- ▶ Micro Tattooing Platform (with light, 4x magnification, skin prep holder and DC power supply)
  - ▶ Finger guards
  - ▶ Neonate pigment
  - ▶ Skin prep
  - ▶ Fine tip needles
  - ▶ Instruction book and DVD
- (Laboratory Animal Tattoo Identification Vol. 1, Neonate Mice and Rats)



Micro Tattooing Platform

### Large Lab Animal Tattoo System

AIMS ATS-3L large lab animal tattoo system is a compact tattoo kit specifically developed for tattoo identification of large laboratory animals (hamsters, guinea pigs, ferrets, rabbits, NHP, swine – anything larger than a mouse/rat).

##### Kit includes:

- ▶ AIMS ultra-light tattoo machine
- ▶ Foot pedal on/off micro-controller
- ▶ AIMS small/large bore calibrated needle tube
- ▶ Select large animal tattoo needles
- ▶ Small equipment profile (quick setup/pickup)
- ▶ Reduced animal stress (quick tattooing)
- ▶ Easy cleaning and sterilization between animals
- ▶ Detailed operating and tattooing instructions
- ▶ Unlimited technical support from AIMS



### Quiet Tattoo Machine version also available

Reduces noise level which leads to a calmer animal, 54% lighter, better balance, less hand fatigue.

MODEL	DESCRIPTION
NEO-9	Neonate Rodent Tattoo System Includes Lab Animal Tattoo Identification Vol. 1, Neonate Mice & Rats and DVD Instruction Video
NEO-9Q	Quiet version of the NEO-9
ATS-3	General Rodent Tattoo System Includes Lab Animal Tattoo Identification Vol. 2, Adult Mice & Rats and DVD Instruction Video
ATS-3Q	Quiet version of the ATS-3
ATS-3L	Large Lab Animal Tattoo System with instruction book
ATS-3LQ	Quiet version of the ATS-3L
NEO-AP	Neonate Accessory Package
NTS-01	Micro Tattooing Platform

#### Large Lab Animal Upgrade Package

LLA-AP Adds custom accessories and detailed instructions to easily tattoo identify large lab animals.

#### Battery Operation Upgrade Package

BPO-AP Adds remote operation capabilities to the ATS-3  
Eliminates need for electrical outlet. Allows extended operation in any location. Ideal for field work animal identification!

### Ear Punch



MODEL	DESCRIPTION
EP-901	1mm Punch (scissor style)
EP-902	2mm Punch (scissor style)
EP-900	Ear Punch 2mm (thumb style)
EP-M900	Millex 2mm (thumb style)

### Small Animal Ear Tag

Stainless steel applicator is designed to seal tags with minimal pressure, while providing a secure seal. Applicator can be used with or without the spring. Spring applies slight closing pressure to help hold tag in applicator prior to sealing.



MODEL	DESCRIPTION
EP-1005-S1	Stainless Steel Small Animal Ear Tag Applicator
EP-1005-1	Small Animal Ear Tags (1,000 pieces)

Custom numbering available. Visit [braintreesci.com](http://braintreesci.com) for details

### Ear Puncher

A small and efficient ear puncher with spring action. Allows user to come closer when marking animal and is also equipped with a sloped edge for a clean cut. Autoclavable, but should be lubricated afterwards for long and trouble free usage. 11cm long with a 2mm diameter hole.



MODEL	DESCRIPTION	HOLE DIAMETER
EP-A7020	Ear Puncher	2mm

### Ear Punch Pincher

These pinchers were developed after having several testimonies from customers with sore wrists and thumbs from using small ID punchers. The Ear Punch Pincher relieves stress on wrist during ID marking as it requires a very gentle pressure to cut a hole. Stainless steel puncher has a sloped edge which provides a cut rather than a punch, which minimizes animal discomfort. Autoclavable, but should be lubricated afterwards for long and trouble free usage.



MODEL	DESCRIPTION	HOLE DIAMETER
EP-SA7000	Ear Punch Pincher	2mm
EP-SA7075	Ear Punch Pincher	2.75mm

### Aramis Micro-tattoo System

*A revolutionary method for humane identification of laboratory animals*



Micro-tattooing forceps with disposable hypodermic needle.

Individual identification is essential for maintenance of health/study records and management of colonies of laboratory animals. This instrument is in compliance with regulatory agencies and research protocol requirements for care and use of laboratory animals.

#### Advantages:

- ▶ Permanent mark is easily readable on pigmented or albino animals
- ▶ Humane
- ▶ Rapid and easy to apply
- ▶ Almost infinite ID numbers
- ▶ Sterile and disposable hypodermic needles prevent spread of potentially infectious disease
- ▶ Inexpensive

#### Instructions:

- ▶ Choose the needle
- ▶ Fill ink tank
- ▶ Immobilization
- ▶ Squeeze instrument
- ▶ Identification with grid location

The needle is re-inked when it enters the ink tank on the other side.

Discomfort of animal is minimal and equivalent to a quick injection with a very fine needle.

#### Kit includes:

- ▶ 1 oz. of Ketchum green tattoo paste
- ▶ 1 aluminium planchette
- ▶ Plastic holding case
- ▶ 2 practice hypodermic needles

MODEL	DESCRIPTION
MTK-ARAMIS	Complete Microtattoo Kit
MTP-1	Green Tattoo Paste, 1 oz.
MTP-5	Green Tattoo Paste, 5 oz.



## Sample Collection

### Blood Collection for Facial Vein (Submandibular) Blood Samples



GoldenRod Animal Lancet allows user to take multiple blood samples from small animals in the same day and never lose or hurt an animal. Speed up the blood collecting process with this specially designed and sterile, disposable blood lancet that is inexpensive, easy, and fast to use. Available in a wide variety of

point sizes for various size animals and volumes required.

Developed for researchers that requested a shorter point for use on very young mice and mice of all ages where only one or two drops of blood are needed. The shorter the point length, the less pain and trauma for the animal, and the quicker the healing.

- ▶ Safe - won't hurt the animal
- ▶ Easy to use - works every time
- ▶ Consistent amounts of blood each test
- ▶ Rapid collection - blood flow stops in seconds
- ▶ Allows multiple tests of the same animal
- ▶ Fast - Sterile ready for use
- ▶ Disposable - no cross contamination
- ▶ Humane - similar lancets are used on humans
- ▶ Inexpensive - reduce research costs

Goldenrod Lancets come in several point lengths for various size animals and blood volumes required. Choose the proper lancet point length corresponding to the age of the mouse and the volume of blood needed.

#### Point Length Recommendations:

For Mice: 3mm - for only 1 or 2 drops  
4mm - under 2 months  
5mm - 2 to 6 months  
5.5mm - over 6 months

For Rats: 5.5mm - 6 mm under 3 months  
6mm or 7mm - 3 to 4 months  
7mm or 8mm - over 5 months

Always use the shortest point possible to draw the amount of blood required.

Always be careful when doing multiple bleedings in one day, or daily bleedings, that the volume of blood harvested does not exceed the total volume recommended for that size animal's safety and health.

MODEL	DESCRIPTION
GR-3MM	Goldenrod Animal Lancet 3mm Sterile, 5 trays of 200
GR-4MM	Goldenrod Animal Lancet 4mm Sterile, 5 trays of 200
GR-5MM	Goldenrod Animal Lancet 5mm Sterile, 5 trays of 200
GR-5.5MM	Goldenrod Animal Lancet 5.5mm Sterile, 5 trays of 200
GR-6MM	Goldenrod Animal Lancet 6mm Sterile, 5 trays of 200
GR-7MM	Goldenrod Animal Lancet 7mm Sterile, 5 trays of 200
GR-8MM	Goldenrod Animal Lancet 8mm Sterile, 5 trays of 200

**A full selection of Sarstedt tubes is available, please email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**

### Microvette® 100/200

**Provides all the benefits of a universally suitable capillary blood collection system**



The Microvette® 100/200 offers the ideal solution for collection of even the smallest blood volumes. Preassembled end-to-end capillary ensures a controlled collection to capillary technique. The Microvette® enables blood sampling using either the special rim or gravity-flow principle without any problem.

Depending on individual requirements, the Microvette® is available with a cylindrical inner tube for optimum mixing results or a conical inner tube for a high serum/plasma supernatant. Cylindrical outer container is ideal for barcodes and patient labels. Special cap design minimizes aerosol effect when tube is opened and provides safe sealing features.

MODEL	DESCRIPTION	UNITS
<b>MICROVETTE 100 -100µL, Conical inner tube</b>		
MCB-201280-BX	Serum . . . . .	100/pk
MCB-201280-CS	Serum . . . . .	1,000/cs
MCB-201282-BX	Lithium-Heparin . . . . .	100/pk
MCB-201282-CS	Lithium-Heparin . . . . .	1,000/cs
<b>MICROVETTE 100 -100µL, Round bottom inner tube</b>		
MCB-201278-BX	Potassium EDTA . . . . .	100/pk
MCB-201278-CS	Potassium EDTA . . . . .	1,000/cs
<b>MICROVETTE CB200 -200µL, Conical inner tube</b>		
MCB-201290-BX	Serum . . . . .	100/pk
MCB-201290-CS	Serum . . . . .	1,000/cs
MCB-201292-BX	Lithium-Heparin . . . . .	100/pk
MCB-201292-CS	Lithium-Heparin . . . . .	1,000/cs
MCB-201289-BX	Glucose . . . . .	100/pk
MCB-201289-CS	Glucose . . . . .	1,000/cs
<b>MICROVETTE CB200 -200µL, Round bottom inner tube</b>		
MCB-201291-BX	Serum-Gel . . . . .	100/pk
MCB-201291-CS	Serum-Gel . . . . .	1,000/cs
MCB-201288-BX	Potassium-EDTA . . . . .	100/pk
MCB-201288-CS	Potassium-EDTA . . . . .	1,000/cs

### Microvette® CB 300

**Capillary collection and sample container in one unit**



The Microvette® CB 300 capillary tube, along with its attached push cap, is supplied complete with a carrier tube that is also suited for transport and centrifugation. Cylindrical outer tube is ideal for attachment of a barcode label for direct sample analysis.

Extremely slim design of the Microvette® CB 300's capillary tube ensures optimum serum/plasma recovery following centrifugation.

MODEL	DESCRIPTION	UNITS
<b>MICROVETTE, CB300, 0.3ML</b>		
MCB-16440-BX	Serum/Clotting activator . . . . .	100/pk
MCB-16440-CS	Serum/Clotting activator . . . . .	1000/cs
MCB-16443-BX	Lithium-Heparin . . . . .	100/pk
MCB-16443-CS	Lithium-Heparin . . . . .	1000/cs
MCB-16444-BX	Hematology/Potassium EDTA . . . . .	100/pk
MCB-16444-CS	Hematology/Potassium EDTA . . . . .	1000/cs





## Multivette® 600

### Capillary and venous blood collection in one system

The unique Multivette® 600 is the only product that can collect both venous and capillary blood. For venous blood collection, a Luer needle is connected to the capillary tube of the Multivette®, which automatically fills by normal venous pressure. Capillary blood is performed using the end-to-end principle. The special pre-assembled capillary tube is designed to hold 600µL of blood.



MODEL	DESCRIPTION	UNITS
<b>MULTIVETTE 600µL</b>		
MLT-151670-BX	Serum/Clotting Activator	100/pk
MLT-151670-CS	Serum/Clotting Activator	1000/cs
MLT-151674-BX	Serum Gel/Clotting Activator	100/pk
MLT-151674-CS	Serum Gel/Clotting Activator	1000/cs
MLT-151673-BX	Plasma /Lithium Heparin	100/pk
MLT-151673-CS	Plasma /Lithium Heparin	1000/cs
MLT-151675-BX	Plasma Gel/Lithium Heparin	100/pk
MLT-151675-CS	Plasma Gel/Lithium Heparin	1000/cs
MLT-151671-BX	Hematology/Potassium EDTA	100/pk
MLT-151671-CS	Hematology/Potassium EDTA	1000/cs
MLT-151672-BX	Glucose/Flouride	100/pk
MLT-151672-CS	Glucose/Flouride	1000/cs

## Minivette® POCT

Easy sample recovery due to optimal capillary features

- Precise dispensing of small whole blood volumes
- Prevents spillage during transfer to test card
- Available in 20µl and 50µl volumes
- Preparations: Neutral, heparin and EDTA



MODEL #	DESCRIPTION	COLOR CODE	UNITS
MP20-2111-PK	20 µl, neutral	White	200/pk
MP20-2111-CS	20 µl, neutral	White	1,000/cs
MP50-2111-PK	50 µl, neutral	White	200/pk
MP50-2111-CS	50 µl, neutral	White	1,000/cs
MP20-2112-PK	20 µl, Lithium Heparin	Orange	200/pk
MP20-2112-CS	20 µl, Lithium Heparin	Orange	1,000/cs
MP50-2112-PK	50 µl, Lithium Heparin	Orange	200/pk
MP50-2112-CS	50 µl, Lithium Heparin	Orange	1,000/cs
MP20-2113-PK	20 µl, EDTA	Red	200/pk
MP20-2113-CS	20 µl, EDTA	Red	1,000/cs
MP50-2113-PK	50 µl, EDTA	Red	200/pk
MP50-2113-CS	50 µl, EDTA	Red	1,000/cs

## Prepared Micro Tubes with Screw Cap Closure

- Closure contains integral O-ring
- Sample volume 1.3ml
- Skirted, conical base
- Label



MODEL	DESCRIPTION	UNITS
MT-1392	Micro Tube, 1.3ml, Serum/Clotting Activator	1,000/cs
MT-1393	Micro Tube, 1.3ml, Plasma /Lithium Heparin	1,000/cs
MT-1395	Micro Tube, 1.3ml, Hematology/Potassium EDTA	1,000/cs
MT-1378	Micro Tube, 1.1ml, Serum/Gel	1,000/cs
MT-1350	Micro Tube, 1.3ml, Citrate	1,000/cs

## Prepared Micro Tubes with Attached Push Cap Closure

- Skirted, conical base and label
- Preparations: Serum clotting activator, plasma lithium heparin, hematology potassium EDTA and coagulation citrate



MODEL	DESCRIPTION	UNITS
PMT-1500-PK	Serum-Gel, 1.1 ml	100/pk
PMT-1500-CS	Serum-Gel, 1.1 ml	1,000/cs
PMT-1501-PK	Serum, 1.3 ml	100/pk
PMT-1501-CS	Serum, 1.3 ml	1,000/cs
PMT-1503-PK	Lithium Heparin, 1.3 ml	100/pk
PMT-1503-CA	Lithium Heparin, 1.3 ml	1,000/cs
PMT-1504-PK	EDTA, 1.3 ml	100/pk
PMT-1504-CS	EDTA, 1.3 ml	1,000/cs
PMT-1506-PK	Citrate, 0.5 ml	100/pk
PMT-1506-CS	Citrate, 0.5 ml	1,000/cs

## New! "Blue Wax" Tissue Processing Disc

Makes tissue processing easy and quick



Process tissue using a clean blue wax surface. Layout, pin, and trim tissue. Use for processing, inspecting, and documenting tissue pathology. "Blue Wax" is specially formulated to provide the proper consistency to allow pins to stick firmly and be easily removed.

MODEL	DESCRIPTION	QTY/PK
TPD-L	Large Tissue Processing Disc (4" dia., 0.25" thick)	10
TPD-M	Medium Tissue Processing Disc (2.75" dia., 0.25" thick)	10
TPD-S	Small Tissue Processing Disc (2" dia., 0.25" thick)	10
TPIN	Ball Head Tissue Pins, S/S (1.5" long)	50

## New! "Blue Wax" Dissection Tray

Add a dissection tray with a wax base pinning surface for detailed dissections!

Specially formulated to provide proper consistency to allow pins to stick firmly and be easily removed.

Dissection tray uses a completely environmentally safe wax product instead of "black wax" like product used in most other dissection trays. MSDS sheet for this product lists no toxic chemicals and no fire, health or reactivity hazards with this product. "Blue Wax" can be heated to renew surface and dissection tray can be reused several times.



MODEL	DESCRIPTION
DTW1	Dissection Tray 9.5" x 7" x 1"
DTW5	Dissection Tray (five trays per pack)



# PCR Plates, Tubes and Seals

## 96 Well PCR Plates

### Semi-Skirted, Raised Deck

- ▶ Semi-skirted plate designed specifically for ABI thermal cycler compatibility
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0446	Box with 5 packs of 5 each

### Semi-Skirted, Flat Deck

- ▶ Semi-skirted plate designed specifically for ABI thermal cycler compatibility
- ▶ Flat deck for improved handling and sealing
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0824	Box with 5 packs of 5 each

### Low Profile, Non-Skirted

- ▶ Designed to reduce dead space and prevent condensation on side wall
- ▶ Maximum well volume: 200µL
- ▶ Recommended for use with low volume reactions (< 20µL)
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0029	Box with 5 Packs of 5 each

### Non-Skirted, Flexible

- ▶ Original PCR plate design
- ▶ Flexible deck allows plate to be easily cut into strips or other desired sizes
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0016	Box with 5 packs of 5 each

### Non-Skirted, Rigid

- ▶ Rigid plate deck provides firm handling
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0074	Box with 5 packs of 5 each

### Semi-Skirted, Breakaway

- ▶ Segmented design allows plate to be cut into 24 and 48 well sections
- ▶ Versatile semi-skirted plate with broad range thermal cycler compatibility
- ▶ Sealing Options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0127	Box with 5 packs of 5 each

### Low Profile, Skirted

- ▶ Designed to reduce dead space and prevent condensation on side wall
- ▶ Fully skirted for automated handling
- ▶ 200µL maximum well volume
- ▶ Recommended for use with low volume reactions (<20µL)
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips

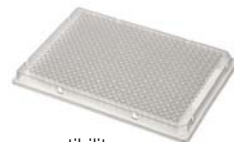


MODEL	DESCRIPTION
SP0037	Box with 5 packs of 5 each

## 384 Well PCR Plate

### Skirted

- ▶ 40µL maximum well volume, 25µL working volume
- ▶ SBS footprint gives broad range thermo cycler compatibility
- ▶ Sealing Options: Heat sealing, adhesive sealing



MODEL	DESCRIPTION
SP0017	Box with 5 packs of 10 each

## 96 Well Plate

### 370µl Round Well, U-Bottom

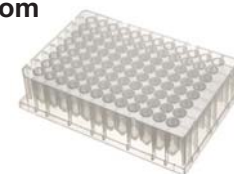
- ▶ U-bottom aids in resuspension, supporting ribs increase centrifugation strength
- ▶ Sealing options: Heat sealing and adhesive sealing



MODEL	DESCRIPTION
SP0084	Box of 100 (bulk packed)

### 0.8ml, Round Well, Conical Bottom

- ▶ Conical bottom aids in complete sample retrieval
- ▶ Sealing options: Heat sealing, adhesive sealing, and mat caps
- ▶ SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0073	Box of 50 (individually wrapped)

### 1.2ml, Round Well, U-Bottom

- ▶ U-bottom aids in resuspension, makes plate suitable for bacterial growth cultures
- ▶ Sealing options: Heat sealing, adhesive sealing, and mat caps
- ▶ SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0080	Box of 50 (individually wrapped)

### 2.2ml, Square Well, U-Bottom

- ▶ U-bottom aids in resuspension, makes plate suitable for bacterial growth cultures
- ▶ Sealing options: Heat sealing, adhesive sealing, and mat caps
- ▶ SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0092	Box of 50 (individually wrapped)

# PCR Plates, Tubes and Seals



## 2.2ml, Square Well, Conical Bottom

- Conical bottom aids in complete sample retrieval
- Sealing options: Heat sealing, adhesive sealing, and mat caps
- SBS footprint, stackable, robot compatible

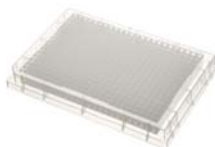


MODEL	DESCRIPTION
SP0103	Box of 50 (individually wrapped)

## 384 Well Plate

### 120µl, Square Well, Pyramidal Bottom

- Separate raised rims around each well and around plate perimeter, aids in sealing and prevents cross contamination
- Sealing options: Heat sealing, adhesive sealing
- SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0089	Box with 5 packs of 10 each

### 250µl, Square Well, Conical Bottom

- Conical bottom aids in complete sample retrieval
- Sealing Options: heat sealing, adhesive sealing
- SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0925	Box with 5 Packs of 10 each

## 96 Well Mat Caps

### Round

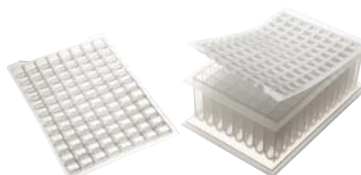
- Flexible mat designed to seal round well storage plates
- Pierceable version is solvent resistant (including DMSO)



MODEL	DESCRIPTION	QTY
SP0077	Round Cap, Pierceable, DMSO Resistant, flexible	5 packs of 10 each
SP0444	Round Cap, Pierceable, DMSO Resistant, rigid	5 packs of 10 each
SP0347	Round Cap, Autoclavable, non-DMSO Resistant non-pierceable	5 packs of 10 each

### Square

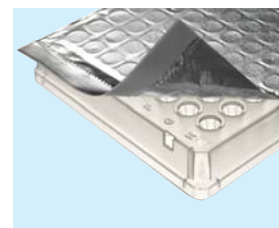
- Flexible mat designed to seal square well storage plates
- Pierceable version is solvent resistant (including DMSO)



MODEL	DESCRIPTION
SP0081	Square Cap, Pierceable, DMSO Resistant, 50 Mats
SP0093	Square Cap, Autoclavable, 50 Mats

## Adhesive PCR Foil (PCR, Storage)

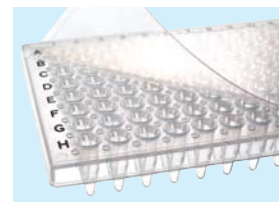
- Designed for PCR. Can be pierced with a pipette tip, with no adhesive build-up on tip
- Recommended for use in conjunction with a cycler that has a screw-down or clip-down lid
- Peelable, Pierceable, Temperature range: -70°C to 150°C



MODEL	PACKAGE TYPE	QTY/UNIT
SP0028	100 Sheets	100

## Adhesive PCR Film (PCR, Storage)

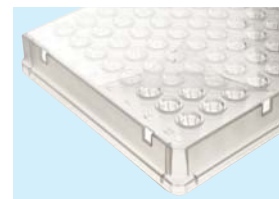
- Designed for PCR. Optically clear for sample visibility
- Recommended for use in conjunction with a cycler that has a screw-down or clip-down lid
- Peelable, temperature range: -20°C to 120°C



MODEL	PACKAGE TYPE	QTY/UNIT
SP0027	100 Sheets	100

## Ultra-Clear Adhesive QPCR Film

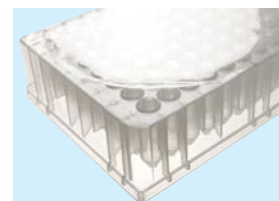
- Designed for QPCR and other fluorescence applications
- Recommended for use in conjunction with a cycler that has a screw-down or clip-down lid
- Peelable, temperature range: -40°C to 120°C



MODEL	PACKAGE TYPE	QTY/UNIT
SP0605	100 Sheets	100

## Adhesive Storage Film

- Economical plate seal designed for short term storage and benchtop use
- Peelable, temperature range: -40°C to 80°C



MODEL	PACKAGE TYPE	QTY/UNIT
SP0443	100 Sheets	100





## PCR Plates, Tubes and Seals

### 0.2ml PCR Tubes

- Uniform thin walls
- Compatible with standard 0.2ml thermal cycler blocks
- 0.25ml maximum volume
- Flat caps are frosted



MODEL	DESCRIPTION	QTY/BX
SP0019	0.2ml PCR Tube, domed cap	2 bags of 500
SP0018	0.2ml PCR Tube, flat cap	2 bags of 500

### 0.5ml PCR Tubes

- Uniform thin walls
- Compatible with standard 0.5ml thermal cycler blocks
- 0.6ml maximum volume
- Both domed and flat caps are frosted



MODEL	DESCRIPTION	QTY/BX
SP0022	0.5ml PCR Tube, domed cap	4 bags of 250
SP0021	0.5ml PCR Tube, flat cap	4 bags of 250

### PCR Strip Tubes



- Thin wall design for rapid heat transfer
- Compatible with standard 0.2ml thermal cycler blocks
- Can be cut into individual tubes

MODEL	DESCRIPTION	QTY
SP0023	0.2ml PCR strip tubes, strips of 8	10 packs of 12 strips
SP0020	0.2ml PCR strip tubes, with domed caps, strips of 8	bag of 250 each strip tubes and strip caps

### Low Profile PCR Strip Tubes



- 150µL maximum volume
- Strip has A-H labeled end tabs
- Designed to reduce dead space and prevent condensation on side wall
- Recommended for use with low volume reactions (<20µL)

MODEL	DESCRIPTION	QTY/BX
SP0085	Low Profile PCR strip tubes, strips of 8	10 packs of 12 strips

### PCR Strip Caps



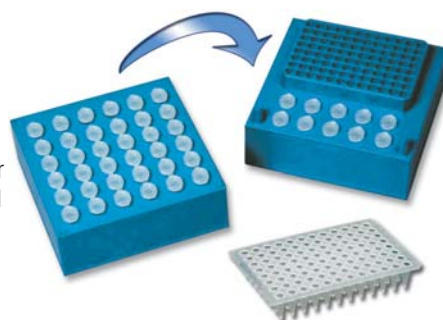
- Suitable for use with 96-well PCR plates as well as standard and low profile strip tubes
- Flat caps have labeled end tabs for strip orientation and removal
- QPCR strip caps are made from specially formulated clear polypropylene and have ultra-clear, highly polished surface. Ideal for QPCR and fluorescence detection

MODEL	DESCRIPTION	QTY/BX
SP0030	Flat PCR Strip Caps, strips of 8	10 packs of 12 strips
SP0516	Domed PCR Strip Caps, strips of 8	10 packs of 12 strips
SP0100	QPCR Strip Caps, Flat, strips of 8	10 packs of 12 strips
SP0078	Strip Cap tool sold individually	each

### CoolCube

#### Microtube and Microplate Cooler

CoolCube™ is designed to store samples safely on lab bench without sample degradation due to temperature increase or fluctuation. Constructed of DuraStar (a high strength polymer) and a proprietary gel refrigerant, CoolCube maintains temperature at approximately 0°C for up to four hours.



Simply place the CoolCube in a freezer overnight and it's ready for use, keeping samples cool and safe at the bench, without messy ice buckets or wet tubes.

One side of CoolCube can be used as a convenient PCR workstation, with wells for 10 standard 1.5/2ml microtubes and one 96 well PCR plate or 0.2ml tubes/strips. The other side can be used to hold 36 standard 1.5/2ml microtubes.

MODEL	DESCRIPTION
R1000	CoolCube Microtube and PCR Plate Cooler





## Blue Graduated Measuring Cylinders



### Tall form – PMP

Conforms to ISO 6706 1981 (E) and BS 5404 Part 2 1977. Crystal clear. Autoclavable. Can be used for liquids up to 170°C. No wetting. No meniscus. Permanent graduations.

MODEL	CAP	GRAD	TOL	OD Ø	H	QTY/PK
K2570	10ml	0.2ml	± 0.2	13.5mm	139mm	20
K2573	100ml	1ml	± 1	31mm	249mm	1
K2576	1000ml	10ml	± 10	66mm	438mm	4
K2577	2000ml	20ml	± 20	84mm	531mm	2
K2571	25ml	0.5ml	± 0.5	18.5mm	195mm	20
K2574	250ml	2ml	± 2	41.5mm	315mm	8
K2572	50ml	1ml	± 1	26mm	199mm	20
K2575	500ml	5ml	± 5	55mm	361mm	6

## Blue Graduated Beakers



### Low form – PMP

Conforms to ISO 7056 1981 (E) and BS 5404 Part 1. Crystal clear. Autoclavable. Will withstand 170°C for short periods. Permanent graduations are molded in for reproducibility. Excellent chemical resistance.

MODEL	CAP	GRAD	TOL	OD Ø	H	WALL THICKNESS	QTY/CS
K1543	100ml	5ml	± 10%	52mm	72mm	1.5	48
K1548	1000ml	20ml	± 10%	110mm	146mm	1.8	12
K1541	25ml	1ml	± 10%	34mm	49mm	1.3	40
K1545	250ml	10ml	± 10%	71mm	95mm	1.7	32
K1530	3000ml	500ml	± 10%	159mm	201mm	2.5	2
K1542	50ml	2ml	± 10%	42mm	60mm	1.3	40
K1546	500ml	10ml	± 10%	88mm	119mm	1.8	24
K1531	5000ml	500ml	± 10%	190mm	228mm	2.5	2

## Hybex™ Reusable Media Bottles

Manufactured from high quality, borosilicate 3.3 glass. With their superior chemical resistance, these bottles are ideal for storage of reagents, culture media, biological fluids and a variety of other aqueous and nonaqueous solutions.



A low coefficient of thermal expansion (3.3), provides temperature resistance that is far superior to that of standard lab glass (or soda lime glass). Hybex glass can withstand temperatures from -70 to 500°C, permitting repeated use in freezers, microwaves, autoclaves and dry heat sterilization chambers.

All hybex media bottles include a drip-free sealing ring as well as a standard blue polypropylene (GL45) sealing cap. Bottles are also available with green, purple, white and yellow caps, or in an assortment pack containing two of each color.

### Specifications:

**Material:** Hybex™ borosilicate glass (3.3)

**Cap thread size:** GL45\*

**Temperature range:** -70° to 500°C

**Sterilization:** Autoclave or dry heat

**Cap material:** Polypropylene (140°C)

**Cap colors:** Standard blue, green, purple, yellow, white, assorted

*Please replace -X with (-B) for blue, (-G) for green, (-P) for purple, (-Y) for yellow, (-W) for white or (-AS) for assorted caps (2 of each color)*

MODEL	DESCRIPTION
B3000-50-X	Bottle, 50ml (GL32), 10/pk.
B3000-100-X*	Bottle, 100ml (GL45) 10/pk.
B3000-250-X*	Bottle, 250ml (GL45) 10/pk.
B3000-500-X*	Bottle, 500ml (GL45) 10/pk.
B3000-1000-X*	Bottle, 1000ml (GL45) 10/pk.
B3000-2000-X*	Bottle, 2000ml (GL45) 5/pk.
B3000-SP-X*	Bottle, StarterPack (GL45) (pack of 10 bottles, includes 2x100ml, 3x250ml, 3x500ml, and 2x1L)
B3000-CAP-X*	Replacement cap, (GL45), 10/pk.
B3000-RIN	Replacement sealing ring (GL45), 10/pk.
B3000-CAP2	Replacement cap, blue (GL32), 10/pk.
B3000-RIN2	Replacement sealing ring (GL32), 10/pk.
B3000-CAP-R	High Temperature Cap, red, up to 180°C, 10/pk.

\* 50ml bottles are only supplied with GL32 sealing caps

## Staining



## Coplin Staining Jar, 5-10 Slide Unit



Holds ten 3" x 1" (75mm x 25mm) slides, which extend above the opening. Can be manipulated without using forceps. Screw cap made of linerless white polypropylene which reduces solvent evaporation and spills during storage. Rectangular base, holds approximately 55ml.

MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 26mm L x 26mm W x 70mm D</b>		
900520	Coplin Jar with PP Screw Cap	6
900522	Replacement Cap, 58-400	6

## Coplin Staining Jar, 5-10 Slide Unit with Screw Cap

Used for staining slides, or as a developing chamber for thin-layer chromatography. Holds five single 3" x 1" (75mm x 25mm) slides vertically, or 10 slides back-to-back. Screw cap is made of linerless white polypropylene to reduce solvent evaporation. Rectangular base, holds approximately 60ml.



MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 26mm L x 26mm W x 90mm D</b>		
<b>Holds approximately 60ml</b>		
900570	Coplin Jar with PP Screw Cap	6
900522	Replacement Cap, 58-400	6
900470	Coplin Jar with Glass Cover	6



## Staining

### Staining Jar, 8-10 Slide Unit

Wide top for convenience in transferring slides, suitable for staining slides that are inscribed on one end. Holds eight single 3" x 1" (75mm x 25mm) slides vertically or 16 slides back-to-back.



MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 42mm L x 26mm W x 85mm D</b>		
900620	Staining Jar with Cover	6

### Staining Dish, 10-20 Slide Unit

*Manufactured from soda-lime glass*



20-slide unit is the standard for manual staining procedures. Removable glass slide rack has an open bottom to facilitate rapid immersion and drainage, reducing carryover. Rack holds 10 single slides, 19 slides arranged alternately straight across and diagonally, or 20 slides back-to-back

of standard size: 3" x 1" (75mm x 25mm), 3" x 1.5" (75mm x 38mm) and 3" x 2" (75mm x 51mm) sizes.

MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 95mm L x 76mm W x 64mm D</b>		
900200	Complete (Dish, Cover, Rack, Handle)	6
900201	Dish	3
900202	Cover	3
900203	Dish and Cover	3
900204	Glass Slide Rack	3
900205	Handle	6

### Staining Dish, 16-40 Slide Unit

Mix-and-match components offer great flexibility. Accommodates 16, 20 and 30 slide racks. Holds slides sizes 3" x 1" (75mm x 25mm), 3" x 1.5" (75mm x 38mm), and 3" x 2" (75mm x 51mm).



MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 118mm L x 88mm W x 70mm D</b>		
900303	Dish and Cover	6
900301	Dish	3
900302	Cover	3
900234	30 Slide Rack with hinged handle-stainless steel	3
900254	(16-32) Slide Rack, Glass	3
900304	(20-40) Slide Rack, Glass	3

### Staining Dish, 50 Slide Unit

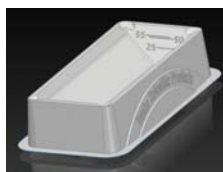


Slotted rack holds 50 slides, sizes 3" x 1" (75mm x 25mm), 3" x 1-1/2" (75mm x 38mm), and 3" x 2" (75mm x 51mm). Made of non-tarnishable stainless steel that is resistant to

staining solutions. Handle is permanently attached, but hinged to permit closure of the dish and easy insertion and removal of the microscope slides.

MODEL	DESCRIPTION	QTY/CASE
<b>Approximate inside dimensions: 185mm L x 88mm W x 68mm D</b>		
900400	Complete (Dish, Cover, Rack, Handle)	6
900401	Dish	3
900402	Cover	3
900403	Dish and Cover	3
900404	50 Slide Rack with handle attached-stainless steel	3

### Multi-Channel Lab Trough



The unique design of this reagent reservoir was created through many years of product development, manufacturing design and industry experience to be a durable and easy-to-use tool for the researcher. Choose from four different sizes of the lab trough, 15ml, 25ml, 50ml and 100ml in both sterile and non-sterile packaging.

The sterilization process is by gamma irradiation which ensures the absence of growth-affecting residue. Lab troughs are HDPE, White PS and Clear PET.

Multi-channel lab trough is a state of the art tray developed by Quake Scientific Products.

- Graduations on narrow side inner wall provide a quick reference for remaining solutions
- Unique rigid base design to help avoid spillage
- Pour spouts on all four corners
- Unique bottom trough design allows for complete removal of small volumes of solutions
- Sterile lab troughs packaged in easy open bags

MODEL	DESCRIPTION	QTY/PK	MATERIAL
Q100-550S	5ml Shorti Sterile Bulk Packaged 10/bag	50	PET
Q100-550	5ml Shorti Non-Sterile Bulk	50	PET
Q200-550S	5ml Shorti Sterile Bulk Packaged 10/bag	50	PS
Q200-550	5ml Shorti Non-Sterile Bulk	50	PS
Q300-550S	5ml Shorti Sterile Bulk Packaged 10/bag	50	HDPE
Q300-550	5ml Shorti Non-Sterile Bulk	50	HDPE
Q100-15100S	15ml Sterile Bulk Packaged 5/bag	100	PET
Q100-1550	15ml Non-Sterile Bulk	50	PET
Q100-1550S	15ml Sterile Individually Wrapped	50	PET
Q200-15100S	15ml Sterile Bulk Packaged 5/bag	100	PS
Q200-1550	15ml Non-Sterile Bulk	50	PS
Q200-1550S	15ml Sterile Individually Wrapped	50	PS
Q300-15100S	15ml Sterile Bulk Packaged 5/bag	100	HDPE
Q300-1550	15ml Non-Sterile Bulk	50	HDPE
Q300-1550S	15ml Sterile Individually Wrapped	50	HDPE
Q100-25100S	25ml Sterile Bulk Packaged 5/bag	100	PET
Q100-2550	25ml Non-Sterile Bulk	50	PET
Q100-2550S	25ml Sterile Individually Wrapped	50	PET
Q200-25100S	25ml Sterile Bulk Packaged 5/bag	100	PS
Q200-2550	25ml Non-Sterile Bulk	50	PS
Q200-2550S	25ml Sterile Individually Wrapped	50	PS
Q300-25100S	25ml Sterile Bulk Packaged 5/bag	100	HDPE
Q300-2550	25ml Non-Sterile Bulk	50	HDPE
Q100-50100	50ml Non-Sterile Bulk	100	PET
Q100-50100S	50ml Sterile Individually Wrapped	100	PET
Q100-50200S	50ml Sterile Bulk Packaged 5/bag	200	PET
Q100-5050	50ml Non-Sterile Bulk	50	PET
Q100-5050S	50ml Sterile Individually Wrapped	50	PET
Q200-50100	50ml Non-Sterile Bulk	100	PS
Q200-50100S	50ml Sterile Individually Wrapped	100	PS
Q200-50200S	50ml Sterile Bulk Packaged 5/bag	200	PS
Q200-5050	50ml Non-Sterile Bulk	50	PS
Q200-5050S	50ml Sterile Individually Wrapped	50	PS
Q300-50100	50ml Non-Sterile Bulk	100	HDPE
Q300-50100S	50ml Sterile Individually Wrapped	100	HDPE
Q300-50200S	50ml Sterile Bulk Packaged 5/bag	200	HDPE
Q300-5050	50ml Non-Sterile Bulk	50	HDPE
Q300-5050S	50ml Sterile Individually Wrapped	50	HDPE
Q100-100100	100ml Non-Sterile Bulk	100	PET
Q100-100100S	100ml Sterile Individually Wrapped	100	PET
Q100-100200S	100ml Sterile Bulk Packaged 5/bag	200	PET
Q100-10050	100ml Non-Sterile Bulk	50	PET
Q100-10050S	100ml Sterile Individually Wrapped	50	PET
Q200-100100	100ml Non-Sterile Bulk	100	PS
Q200-100100S	100ml Sterile Individually Wrapped	100	PS
Q200-100200S	100ml Sterile Bulk Packaged 5/bag	200	PS
Q200-10050	100ml Non-Sterile Bulk	50	PS
Q200-10050S	100ml Sterile Individually Wrapped	50	PS
Q300-100100	100ml Non-Sterile Bulk	100	HDPE
Q300-100100S	100ml Sterile Individually Wrapped	100	HDPE
Q300-100200S	100ml Sterile Bulk Packaged 5/bag	200	HDPE
Q300-10050	100ml Non-Sterile Bulk	50	HDPE
Q300-10050S	100ml Sterile Individually Wrapped	50	HDPE





## Labpette Discovery Pipettes

**Autoclavable pipettes designed for exceptional comfort and accuracy**



Precision pipettes are designed for exceptional comfort and accuracy. Lightweight and well balanced, they fit comfortably in either right or left hand with large digital display visible to user. Chemically resistant, maintenance-free seals and finely polished pistons provide unsurpassed accuracy sample after sample.

Continuously adjustable, digital micrometer is slightly recessed to prevent unintentional change and is protected from effects of thermal expansion by insulated body of the pipette. For convenience, volume can also be adjusted by turning push-button. Ergonomically positioned, tip ejector reduces fatigue during prolonged use.

Discovery pipettes have a universal shaft that accepts most pipette tips. Tip ejector is adjustable to accommodate various styles of tips and removable for pipetting into narrow tubes. Made from stainless steel, it will not rust, corrode or break. Discovery pipettes are fully autoclavable.

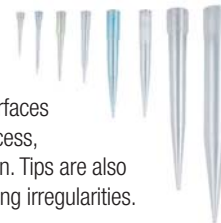
MODEL	DESCRIPTION
P3940-2	Labpette Discovery Pipette, 0.1 - 2 $\mu$ L
P3940-10	Labpette Discovery Pipette, 0.5 - 10 $\mu$ L
P3940-20	Labpette Discovery Pipette, 2 - 20 $\mu$ L
P3940-100	Labpette Discovery Pipette, 10 - 100 $\mu$ L
P3940-200	Labpette Discovery Pipette 20 - 200 $\mu$ L
P3940-1000	Labpette Discovery Pipette, 100 - 1000 $\mu$ L
P3940-5000	Labpette Discovery Pipette, 1000 - 5000 $\mu$ L
P3940-10000	Labpette Discovery Pipette, 1000 - 10000 $\mu$ L
P4508-10	Labpette Discovery Eight-Channel Pipette, 1 - 10 $\mu$ L
P4508-50	Labpette Discovery Eight-Channel Pipette, 5 - 50 $\mu$ L
P4508-200	Labpette Discovery Eight-Channel Pipette, 20 - 200 $\mu$ L
P4508-300	Labpette Discovery Eight-Channel Pipette, 50 - 300 $\mu$ L
P4512-10	Labpette Discovery Twelve-Channel Pipette, 1 - 10 $\mu$ L
P4512-50	Labpette Discovery Twelve-Channel Pipette, 5 - 50 $\mu$ L
P4512-200	Labpette Discovery Twelve-Channel Pipette, 20 - 200 $\mu$ L
P4512-300	Labpette Discovery Twelve-Channel Pipette, 50 - 300 $\mu$ L
P3940-4P	Labpette Discovery 4 Pack Plus, Includes 4 Discovery Pipettes (P3940-10, -20, -200, -1000) One Carousel Stand and 3 Racks of BioFree Tips

## Labnet BioFree™ Pipette Tips



Labnet BioFree pipette tips are designed to fit a wide variety of single and multi-channel pipettes. Flexible walls and a series of internal sealing rings ensure a secure fit and minimal force to eject.

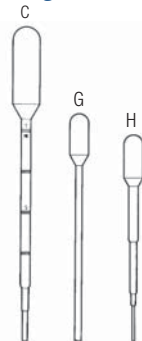
Tips are manufactured from high quality, FDA compliant polypropylene in a clean room environment. Diamond polished, stainless steel molds produce a tip with exceptionally smooth surfaces and extreme accuracy. During manufacturing process, each lot of tips is tested for accuracy and precision. Tips are also carefully inspected for uniformity and manufacturing irregularities.



MODEL	DESCRIPTION
P1000-10	0.5 - 10 $\mu$ L pipette tips, case of 20,000 tips (supplied in 20 x bulk packs of 1,000)
P1000-1000	1000 $\mu$ L pipette tips, case of 5,000 tips (supplied in 5 x bulk packs of 1,000)
P1000-1000-R	1000 $\mu$ L pipette tips, case of 5,000 racked tips (supplied in 5 packs containing 10 x 100 racks)
P1000-10-R	0.5 - 10 $\mu$ L pipette tips case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)
P1000-10X	0.5 - 10 $\mu$ L pipette tips, extended length, case of 20,000 tips (supplied in 20 bulk packs x 1,000)
P1000-10X-R	0.5 - 10 $\mu$ L pipette tips, extended length, case of 19,200 racked tips (supplied in 20 packs containing 10 x 96 racks)
P1000-1200-R	1200 $\mu$ L pipette tips, case of 2,880 racked tips (supplied in 3 packs containing 10 x 96 racks)
P1000-200	200 $\mu$ L pipette tips, case of 20,000 tips (supplied in 20 x bulk packs of 1,000)
P1000-200-R	200 $\mu$ L max, case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)
P1000-300	300 $\mu$ L pipette tips, case of 10,000 tips (supplied as 10 x bulk packs of 1,000)
P1000-300-R	300 $\mu$ L pipette tips, case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)

## Transfer Pipettes

### Single-use Pasteur pipettes



Our range includes a large variety of transfer pipettes for safe and convenient application when transferring liquids in laboratories.

Disposable Pasteur pipettes are suited for versatile application without any risk of injury or infection from broken glass.

As single-use products, pipettes safely prevent carry over or cross-contamination.

Practical graduations are ideally suited for sample measurement and transfer. Pipettes can be heat-sealed to store residual volumes.

For a sterile transfer of liquids, our range includes sterile options either individually wrapped or 20 pipettes per pack.

Polyethylene material is environmentally neutral thereby ensuring non-toxic disposal.

MODEL	DESCRIPTION	LENGTH	BULB VOL	DROP SIZE	TYPE GRAD
PIP-2020	5 Packs of 20 Pipettes Sterile	156mm	3.5ml	30-45 $\mu$ L	C/1:0.25ml
PIP-2001	100 pieces individually wrapped Sterile	156mm	3.5ml	30-45 $\mu$ L	C/1:0.25ml
PIP-1170	100 pieces - Non Sterile	115mm	1ml	45-55 $\mu$ L	G
PIP-1180	100 pieces - Non Sterile	104mm	1ml	17-22 $\mu$ L	H

**Additional pipettes available online. Please visit [www.braintreesci.com](http://www.braintreesci.com) for details and pricing.**



# Centrifuges

## New! Hermle Universal Centrifuge



- ▶ Maintenance-free induction drive
- ▶ Microprocessor with large LCD display
- ▶ Lid lock
- ▶ Automatic rotor identification system with over speed protection, immediately upon rotor insertion
- ▶ Active imbalance-identification and cut-off (rotor-specific)
- ▶ Imbalance tolerant drive
- ▶ A large variety of rotors and accessories available
- ▶ Manufactured according to international safety regulations, i.e. IEC 61010
- ▶ Audible signal at the end of each run with several melody options
- ▶ Rotor exchange is easy to handle
- ▶ Noise level under 63 dBA at maximum speed
- ▶ Improved ventilation system keeps samples cool

### Distinct Control Panel

- ▶ Simple one handed operation
- ▶ Easy to program with gloves on
- ▶ Splash proof digital display
- ▶ Permanent indication of preset and actual values
- ▶ Selection of speed in both rpm and g-force, with increments of 10
- ▶ 10 acceleration and 10 deceleration rates, possibility of unbraked deceleration
- ▶ Pre-selection of running time from 10 seconds to 99 hours 59 minutes or continuous
- ▶ Storage of up to 99 runs including rotor type
- ▶ Quick-key for short runs
- ▶ Diagnostic program

### Specifications:

**Maximum speed:** 13,500 rpm

**Maximum RCF:** 17,319 x g

**Maximum volume:** 4 x 100mL

**Speed range:** 200-13,500 rpm

**Running time:** 59 min. 50 seconds/10 seconds increments;  
99 hours 59 minutes 50 seconds/1 minute increments

**Dimensions:** 14" x 13" x 18.6"/35.5cm x 33cm x 47.4cm

**Weight:** 66 lbs / 30 kg

MODEL	DESCRIPTION
C0306	Hermle Z306 Universal Centrifuge
C0326-12	Rotor, 4 x 100ml economy
C0326-72	Rotor, 4 x 100ml swing out (without buckets)
C0326-72C	Rotor, 4 x 100ml swing out (with buckets)
C0036-16	Rotor, 2 x 3 Microplate
C0036-19	Rotor 30 x 15ml fixed angle
C0200-10	Adapter, 10/15ml round bottom
C0326-96	12 x 15ml fixed angle rotor
C0200-17A	Adapter, 5,7,10ml
C0230-20	Adapter, 1.5ml
0326-97	6 x 50ml fixed angle rotor
C0232-8B	Adapter, 15ml conical/round bottom
C0232-9B	Adapter, 7ml
C0230-41	Cushion for 12 x 75ml
C0326-24	Rotor, 24 x 1.5/2ml
C0326-24H	Rotor, 24 x 1.5/2ml, hermetically sealed
C0036-17	Rotor, 30 x 1.5/2ml
C1205	Adapter, 0.5/0.6 ml
C1206	Adapter, 0.4/0.25ml
C1222	Adapter, 0.2ml

## My Fuge Mini Mini Centrifuge



- ▶ Eight position microtube rotor
- ▶ Storage compartment for PCR rotor
- ▶ Near silent operation
- ▶ Starts and stops in just seconds
- ▶ Conserves valuable bench space

### Specifications:

**Speed:** 6,000 rpm/2,000 xg

**Dimensions:** 4.5" x 5.9" x 4.5", 11.4cm x 15cm x 11cm

**Capacity:** 8 x 1.5/2ml tubes, 16 x 0.2ml PCR tubes, 2 x 0.2ml PCR strips

MyFUGE™ mini centrifuge is a personal centrifuge that fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, MyFuge is extremely easy to use. Simply close lid and rotor instantly reaches 6,000 rpm. Open lid, and rotor quickly decelerates to a stop for removing samples. An increased capacity eight position microtube rotor is included and comes installed. A second rotor for 0.2ml PCR tubes and strips is also included and stored with rotor removal key in a convenient compartment on bottom of the centrifuge. *All include microtube rotor, PCR rotor, 0.5ml and 0.2ml adapter*

MODEL	DESCRIPTION
C1008-B	MyFUGE Mini Centrifuge, blue lid
CI 008-C	MyFUGE Mini Centrifuge, clear lid
C1008-G	MyFUGE Mini Centrifuge, neon green lid
C1008-P	MyFUGE Mini Centrifuge, purple lid
C1008-R	MyFUGE Mini Centrifuge, red lid



## My Fuge 12

### Mini Centrifuge

- ▶ COMBI-Rotor™ for tubes and strips
- ▶ Twice the capacity of traditional mini centrifuges
- ▶ Near silent operation
- ▶ Starts and stops with opening/closing of lid

Unlike traditional mini centrifuges, the MyFuge 12 eliminates the need to change rotors when switching between microtubes and PCR strips.

The included, unique COMBI-Rotor is all that is required for running 12 microtubes and 4 PCR strips simultaneously.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. Simply close lid and unit quickly ramps up to 5500 rpm. Open lid, and rotor quickly decelerates for removal of samples. At just 5.5" wide and less than 4.5" tall, MyFuge 12 truly is a personal centrifuge with unmatched capacity and flexibility.

#### Specifications:

**Speed:** 5,500 rpm/2,000 xg

**Capacity:** 12 x 1.5/2ml tubes, 32 x 0.2ml PCR tubes  
4 x PCR strips (8 x 0.2ml)

**Dimensions:** 5.5" x 7.9" x 4.4"/14 cm x 20cm x 11.2cm

MODEL	DESCRIPTION
C1012	MyFUGE Mini Centrifuge, with COMBI-Rotor for microtubes and PCR strips/tubes
C1008-A5-6	Adapters, 0.5ml, pack of 6
C1008-A2-6	Adapters, 0.2ml, pack of 6



## Compact Lab Centrifuge

Spectrafuge 6C is designed for quick production of PPP (platelet poor plasma) and PRP (platelet rich plasma) as well as other applications in clinical and research laboratory.

Removable rotor of the Spectrafuge 6C accepts 6 x 15ml tubes, and with the adapters will accommodate all common blood draw tubes. Variable speed allows for a variety of applications to be performed. A timer controls operation from 30 seconds to 30 minutes. Time can also be set to continuous, by selecting

"on" position, or momentary, by pressing and holding start knob.

Control panel features easy to turn knobs and large digital displays for time and speed. During operation the lid is locked. Once the rotor has come to a stop, both the time and speed displays flash "00" to signify that run has been completed. Lid can now be opened by pressing the lid knob.

A small footprint allows the Spectrafuge 6C to fit on even the most crowded bench. Its rugged construction will provide years of trouble free operation. Centrifuge can be operated on bench or in a cold room.

MODEL	DESCRIPTION
C0060	Spectrafuge 60 Clinical Laboratory Centrifuge with 6 x 10/15ml rotor
C0200-17A	Combination Adapter Set for 5ml, and 7ml tubes, pack of 6



### New! Prism Mini

- ▶ New rotor designs for increased sample capacity
- ▶ Self opening lid enables single-handed operation
- ▶ Quick release rotor hub allows for easy rotor exchange
- ▶ Built-in braking system for rapid sample processing



Reliable and easy-to-use, the Prism Mini is compact and economical, allowing each workstation to be equipped with a "personal" centrifuge. Ideal for quick spins, it can be used for a wide range of molecular biology separations. It's extremely compact with an exceptionally small footprint. Includes two quick release interchangeable rotors, which spin up to 6000 RPM's. The electronic brake and self opening lid allow for quick deceleration to reduce handling time. A maintenance-free drive system and unique design allow for quiet operation and excellent air-flow, to protect temperature-sensitive samples. Cold room compatible.

**Self opening lid:** Engineered with the lab technician in mind, transparent blue lid allows for a clear view of samples in the rotor. Start and stop of centrifuge can either be controlled by on/off switch or by activating self-opening lid. By depressing lid button, lid automatically opens allowing full access to samples.

**Quick release rotors:** Prism Mini is supplied with two rotors. An 8 place tube rotor accommodates 1.5/2ml tubes and a 4 place strip rotor accommodates 4 x 0.2ml tube strips or 32 individual PCR tubes. Rotors both have a unique quick release hub design. No tools are required to exchange the rotors, simply snap off and snap on to change between applications.

**Rapid braking:** Brake system is controlled electronically. Once lid opens, it signals the brake to activate so that the rotor will come to a quick and soft stop without disrupting the samples.

#### Specifications:

**Capacity:** 8 place tube rotor and 4 place PCR strip rotor

**Maximum speed:** 6000 RPM

**Maximum RCF:** 2000 x G

**Dimensions:** 5.2" x 5.2" x 4.4" / 13.2cm x 13.2cm x 11.2cm

MODEL	DESCRIPTION	QTY
C1801	Prism Mini Centrifuge, 120V. ....	each
C1205	8 Adapters for 0.5 ml tubes .....	pack of 8
C1206	8 Adapters for 0.4 ml tubes .....	pack of 8
C1222	8 Adapters for 0.2 ml tubes, .....	pack of 8

**Other models and capacities available online or by email. Please visit [www.braintreesci.com](http://www.braintreesci.com) or email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**





## Centrifuges

### Spectrafuge™ Mini Centrifuge



- ▶ Supplied with rotors for 1.5/2ml tubes and 0.2ml PCR® strips
- ▶ 6000 rpm/2000 x g
- ▶ On/off switch
- ▶ Durable lid hinge
- ▶ 6" x 6" (153mm x 153mm) footprint
- ▶ Available in five different lid colors

Ideal for quick spin downs and micro filtration. Each unit is supplied with a 6 x 1.5/2ml rotor and adapters for 0.5 and 0.4ml tubes as well as a rotor that will hold 2 x 0.2ml strip tubes, such as those used for thermal cycling. Maximum speed is 6000 rpm, corresponding to 2000 x g in the six place rotor. Each unit has an on/off switch allowing the user to stop motion of rotor before opening centrifuge lid. Lid hinge design incorporates a stainless steel pin for durability. Small footprint allows Spectrafuge Mini Centrifuge to fit on even the most crowded bench, making it a truly personal unit.

The Spectrafuge Mini Centrifuge comes complete with microtube rotor, strip tube rotor, adapters for 0.5ml and 0.4ml tubes. Available in five different translucent lid colors.

#### Specifications:

**Capacity:** 6 x 1.5/2ml tubes, 2 x 0.2ml strip tubes

**Max speed/g-force:** 6000 rpm/2000 x g

**Dimensions:** 6" x 6" x 4.5"/153mm x 153mm x 102mm

MODEL	DESCRIPTION
C-1301-S	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, smoke gray lid
C-1301-B	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, blue lid
C-1301-T	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, teal lid
C-1301-P	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, purple lid
C-1301-R	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, red lid

### Spectrafuge 24D Digital Microcentrifuge

*Welcome to the high end of the performance spectrum*

- ▶ Complete with easy access, 24 x 1.5/2ml rotor
- ▶ Set and view speed in rpm or g-force
- ▶ Digital set and display of parameters
- ▶ Quiet and cool running

Easy-access 24 x 1.5ml rotor is supplied with the Spectrafuge 24D. Innovative rotor places tubes on a plateau, where user can easily grip their tops. Powerful brushless motor quickly accelerates rotor to a maximum speed of 13,300 rpm/16,000 x g. Controls are simple, consisting of only

two knobs. Speed knob is used to set speed in either rpm or g-force. Pressing knob toggles display between rpm and rcf. Turning timer knob sets time parameter, while pushing it starts and stops operation of unit. Last run settings remain in memory allowing for repetitive centrifuging without resetting of parameters.

Extremely quiet and cool running, this unit maintains a small footprint. Spectrafuge 24D is available in five accent colors.

#### Specifications:

**Speed range:** 500 rpm to 13,300 rpm

**Maximum RCF:** 16,300 x g

**Maximum capacity:** 24 x 1.5/2ml

**Timer:** 0 to 30 minutes or continuous "Quick" button for momentary operation

**Dimensions:** 9.25" x 11.5" x 8.5"/23.5cm x 29.3cm x 21.6cm

MODEL	DESCRIPTION
C2400-B	Spectrafuge 24D blue accents
C2400-T	Spectrafuge 24D teal accents
C2400-P	Spectrafuge 24D purple accents
C2400-R	Spectrafuge 24D red accents
C1205	Individual adapters for 0.5/0.6ml tubes, pack of 6
C1206	Individual adapters for 0.4/0.25ml tubes, pack of 6
C1222	Individual adapters for 0.2ml thermal cycling tubes, pack of 6
C2400-SS	StripSpin adapter for 0.2ml tubes and strips. Snaps onto standard rotor



### MPS 1000 Mini Plate Spinner

- ▶ Quickly Spin down droplets and condensation
- ▶ Use before and after thermal cycling to increase PCR yield
- ▶ Accepts skirted, non-skirted and all standard PCR plates
- ▶ Less than 1/4 the size of most plate centrifuges



PATENTS PENDING

#### Specifications:

**Capacity:** 2 PCR Plates

**Rotor speed:** 2500 rpm

**G Force:** 500 xg

**Rotor:** Fixed Vertically

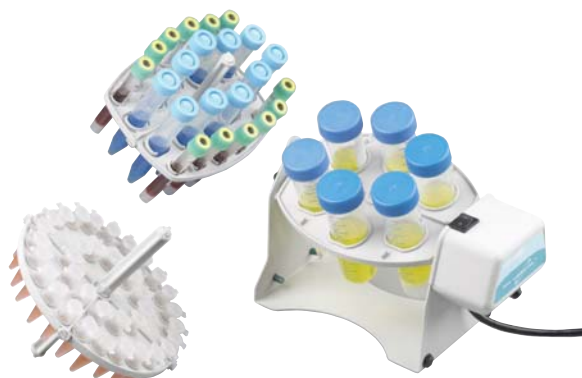
**Dimensions:** 7.5" x 8.2" x 7.2"/ 19cm x 21cm x 18.3cm

MODEL	DESCRIPTION
C1000	Mini Plate Spinner



## Mini LabRoller™ Rotator

*Economical solution for tube mixing*



**Compact and sleek design:** A small footprint and efficient housing design conserve valuable bench space and make Mini LabRoller Rotator suitable for any size laboratory. It has an ambient operating range of 4°-40°C and will easily fit into most incubators. Lightweight and portable, the unit is easily moved from the bench to a biological or chemical hood. Simple construction allows for easy cleaning and decontamination.

**Wide range of motion:** The Mini LabRoller Rotator is uniquely designed so that the level of agitation can be adjusted from gentle rolling, through two levels of tumbling, to forceful end over end mixing simply by changing the rotisserie position. When a rotisserie is inserted horizontally (tubes held vertically), an end over end motion is produced. The unit can then be used for simple rotating, or rested on either end to create a tumbling motion. Placing Mini LabRoller on end with power switch will create a more vigorous tumbling motion than resting it on opposite end. A rocking motion is achieved by simply inserting pegs to limit movement of the rotisserie to 20°, 45°, or 60°. Any of the three available rotisseries can be used as a rocking platform. Using supplied rod, rotisseries may be mounted vertically (tubes held horizontally). In all configurations, the speed of the rotisserie is fixed at 24 rpm.

**Interchangeable rotisseries hold numerous tube sizes:** The Mini LabRoller Rotator is supplied with a rotisserie for 36 x 1.5 or 2ml tubes. Two additional rotisseries are available separately.

### Specifications:

**Motion/speed:** Rotating, rocking, tumbling

**Speed:** 115V/230V 24/20 rpm

**Operating Temperature:** 4° to 40°C

MODEL	DESCRIPTION
H5500	Mini LabRoller Rotator with rotisserie for 36x1.5/2ml tubes
H5500-02	Rotisserie for 36x1.5ml tubes
H5500-15	Rotisserie for 10x15ml and 12x5ml tubes
H5500-50	Rotisserie for 6x50ml tubes

**Other models and capacities available online or by email. Please visit [www.braintreesci.com](http://www.braintreesci.com) or email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**

## Revolver 360° Sample Mixer

### Superior sample mixing

- ▶ Complete 360° rotation
- ▶ Adjustable 0-90° mixing angle



Accepts a variety of tube sizes and mixes them horizontally, vertically, or any position in between. Changing mixing angle is easy simply turn rotisserie. No tools required.

### Revolver with optional H5600-15 rotisserie

Interchangeable rotisseries accept tubes from 1.5ml to 50ml. Each rotisserie is split into two halves. Each half can be exchanged to mix more than one tube type at the same time. Each half can be rotated independently from a center point on shaft. Placing the halves in line with shaft produces an end over end tumbling motion, similar to that used to mix blood tubes. Rotating rotisserie at a right angle to the shaft produces a gentle mixing motion, ideal for delicate samples. Rotation speed is fixed at 18 rpm.

### Revolver with optional H5600-50 rotisserie



Can be used in ambient temperatures from +4°C to 65°C. Ideal for a variety of laboratory settings such as molecular biology, biochemistry, clinical and histochemistry. Small enough to fit on a crowded bench, the rotator is easily moved where it is needed. Molded housing and unique rotisserie design makes the Revolver easy to clean and decontaminate. A 36 x 1.5/2ml rotisserie is supplied with Revolver. Other configurations are available.

MODEL	DESCRIPTION
H5600	Revolver Tube Mixer w/rotisserie for 36 x 1.5 tubes
H5600-02	Rotisserie for 36 x 1.5/2ml tubes (included with unit)
H5600-15	Rotisserie for 10 x 15ml tubes and 16 x 5/7ml tubes
H5600-50	Rotisserie for 6 x 50ml tubes

## GyroMini Nutating Mixer

GyroMini is a smaller version of the popular GyroTwister. Its small size makes it ideal for mixing samples in blood and centrifuge tubes. GyroMini combines motions of an orbital shaker and a rocker to produce a three dimensional action. The result is a thorough yet gentle mixing without foaming. Both speed and tilt angle of this small shaker are fixed to provide the optimal level of agitation for mixing samples in small containers. GyroMini is supplied with a dimpled mat for holding tubes firmly in place. For temperature sensitive samples, the GyroMini can be used in a cold room.



### Specifications:

**Speed range:** 24 rpm

**Motion/ Pitch:** 3-D/fixed 20°

**Maximum load:** 1.75 lb/0.8 kg

**Ambient operating range:** +4° to 65°C

**Dimensions:** 9.75" x 7.5" x 7"/24.8cm x 19.1cm x 17.8cm

MODEL	DESCRIPTION
S0500	GyroMini Nutating Mixer with dimpled rubber mat



## Mixers and Shakers

### Benchrocker



With adjustable speeds and tilt angles, user can set both parameters to match vessel size and volume of liquid being mixed. User can adjust both parameters to match vessel size and volume of liquid being mixed, yielding optimum results. Rocking speed and tilt angle are both easily adjustable in seconds. At low speeds and minimal tilt angles, both models (2D for "see-saw" motion or 3D for "gyratory" motion) provide a gentle wave effect for non-foaming mixing, as is required for most blot washing and gel work. When set to higher speeds and more extreme tilt angles, they produce aggressive agitation for vigorous sample mixing. Dual platform option expands workspace.

BenchRocker 2D and 3D can accept stackable platforms (2.75" clearance). All platform mats are autoclavable. Both models have maintenance free brushless motors and are safe for use in cold rooms and incubators.

MODEL	DESCRIPTION
BR-2000	BenchRocker 2D variable speed rocker with flat mat platform
BR-2000-STACK	Optional stacking platform (14"x12") with flat mat
BR-3D2300	BenchRocker 3D variable speed rocker with dimpled and flat mats
BR-1000-STACK	Optional stacking platform (12"x12") with flat mat
BR-1000-STACK-D	Optional stacking platform (12"x12") with dimpled mat
BR-0718	LaBungee™ elastic tie downs with hooks, pack of 4

### Benchmixer



BenchMixer™ sets the standard in vortex mixing. With advanced Q-Drive™ technology, BenchMixer™ provides smooth instant vortexing of even the largest sample sizes, including full 50ml tubes. Unique counter balance system creates maximum vortexing action, while minimizing noise and excessive vibration resulting in quieter, more efficient and longer lasting operation.

Other features include: "no-walk" suction feet, cold room/incubator compatibility and spill-proof electronic controls.

- ▶ Powerful Motor for instant vortexing
- ▶ Q-Drive™ Dynamic Balance System
- ▶ Touch or Continuous Operation
- ▶ Variable Speed Control from 200 to 3200 rpm

MODEL	DESCRIPTION
BV1000	BenchMixer Vortex Mixer
BV1000-FLAT	Optional 3" flat head
BV1000-COMBO	Optional combination head for tubes and microplates Holds 66 tubes (38 x 1.5ml and 28x 0.5ml) or one microplate

### Vortex Mixer VX-200

**Unique CombiCup™ head has a nonslip surface and accepts single or multiple tubes of various sizes**



#### Mix and vortex any size tube

Variable speed Vortex Mixer VX-200 provides fast, efficient mixing with minimal vibration. Features a true circular orbit that allows for even distribution of vortexing across the entire speed range. CombiCup™ head, supplied as standard, accepts many different tube sizes. A full range of accessories is available to accommodate most common laboratory tubes and plates. Continuously variable speed makes the Vortex Mixer VX-200 useful for a variety of applications, from gentle mixing to resuspending pellets. The unit has a circular orbit, rather than elliptical allowing a vortexing motion to be achieved even at low speeds. The Vortex Mixer VX-200 can be operated in either "touch" or continuous mode. When in "touch" mode, the motion is activated by depressing sample head and stopped by removing pressure. If the unit is set in the "on" position, the Vortex Mixer VX-200 will operate continuously until turned off. CombiCup™ head can be used with a single tube or a whole handful. Unique over molding technology used in the manufacture of CombiCup™ provides a sturdy plastic core surrounded with nonslip TPE. Optional heads available.

- ▶ Powerful, reliable motor
- ▶ Optimized counter balance system minimizes vibration
- ▶ Circular orbit for effective vortexing at any speed
- ▶ Standard CombiCup™ accepts a variety of tube sizes
- ▶ Full range of accessories

#### Specifications:

**Speed range:** 0-3, 400 rpm Vortex a single tube or a handful with the operating modes touch or continuous

**Ambient operating range:** 4° to 65°C Nonslip TPE

MODEL	DESCRIPTION
S0200	Vortex Mixer
<b>Optional Heads</b>	
S0200-21	24 x 1.5/2ml tubes, 24 x 0.5ml tubes and 32 x 0.2ml tubes (or 4 PCR strips)
S0200-22	1 microplate or 64 x 0.2ml tubes or 8 PCR strips
S0200-23	8 x 15ml and 8 x 12/13mm diameter tubes continuously
S0200-24	6 x 50ml tubes adjustable variable
S0200-25	12 x 1.5/2ml tubes, held horizontally
S0200-26	4 x 15ml tubes, held horizontally
S0200-27	2 x 50ml tubes, held horizontally





## Orbit™ 300 Multipurpose Vortexer



Three interchangeable platforms (available separately) accommodate a variety of sample containers to make the Orbit 300 a truly multipurpose shaker. Flat platform, covered with a nonslip rubber mat, holds plates, dishes, boxes, etc. Microplate platform will accommodate up to four microplates. Remaining platform has spring loaded retaining bars that adjust to hold flasks, bottles, racks and other containers in place.

Time and speed are set and displayed digitally. Values are shown on the large, three digit LED. Broad speed range allows the Orbit 300 to be used for gentle mixing as well as vigorous agitation.

Shaker housing is constructed of heavy gauge, coated steel to reduce motor noise and lend stability to the unit. Compact shaker can be used in temperature controlled environments making it ideal for cold room or incubator use.

### Specifications:

**Speed range:** 100-1200 rpm

**Timer:** 0 to 99 minutes or continuous

**Motion/orbit size:** horizontally circular, 3mm

**Maximum load:** 12.3 lb/5.6 kg

**Ambient operating range:** +4° to 65°C

MODEL	DESCRIPTION
S-2030-300	Orbit 300 Digital Multipurpose Shaker, base only
S-2030-10	Platform for four microplates
S-2030-12	Flat platform (30 x 30cm) with nonslip rubber mat
S-2030-13	Spring loaded platform for flasks, bottles, etc.

**Other models and capacities available online or by email. Please visit [www.braintreesci.com](http://www.braintreesci.com) or email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**

## Orbi-Shaker™

- ▶ Perfectly circular 19mm orbit for aeration and mixing
- ▶ Digital speed control up to 300 rpm

The Orbi-Shaker JR is a space-saving shaker, complete with a 9.5" x 8" non slip, rubber coated platform that is ideal for tissue culture flasks, petri dishes and staining trays. Additional platforms are also available for the Orbi-Shaker JR, including the convenient MAGIC Clamp™ platform for use with Erlenmeyer flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.



### Technical Data:

**Speed range:** 50 to 300 rpm

**Speed increment:** 10 rpm

**Orbit:** 19mm (3/4")

**Maximum capacity:** 4 x 1L or 4 kg

**Standard platform dimensions:** 9.5" x 8"/24cm x 20cm

**Dimensions:** 11" x 10.7" x 5"/28cm x 27cm x 13cm

**Operating Temperature:** 4 to 65°C

MODEL	DESCRIPTION
BT300	Orbi-Shaker JR.
H1000-MR	MAGic Clamp™ universal platform (9.5x8")
H1000-MR-50	Clamp for MAGic Clamp™ platform, 50ml (max 20)
H1000-MR-125	Clamp for MAGic Clamp™ platform, 125ml (max 12)
H1000-MR-250	Clamp for MAGic Clamp™ platform, 250ml (max 8)
H1000-MR-500	Clamp for MAGic Clamp™ platform, 500ml (max 6)
H1000-MR-1000	Clamp for MAGic Clamp™ platform, 1000ml (max 4)
H1000-MR-1550	Tube rack for MAGic Clamp™ platform, 12x50 and 21x15ml conical tubes (max 2)
BT300-RP	Rolling bar platform for uncommon vessels



**Visit our website at [www.braintreesci.com](http://www.braintreesci.com)**



## Mixers and Shakers

### Multi-Therm™



#### Cool – Heat – Shake

- ▶ Temperature control from 0° to 100°C
- ▶ Exchangeable blocks for tube sizes 0.2 to 50ml
- ▶ Precision contoured wells for uniform thermal transfer
- ▶ Two models: heat/cool or heat only

#### Technical Data:

**Temperature range (HC):** Ambient 20° to 100°C

**Temperature range (H):** Ambient +5° to 100°C

**Heating ramp rate:** 5.0°C/min.

**Cooling ramp rate:** 2.5°C/min. (HC only)

**Temperature accuracy:** ±1.0°C

**Speed range:** 200 to 1500 rpm, or "off"

**Motion/orbit:** Horizontally circular/2mm

**Capacity:** Per selected block

**Dimensions:** 8.25" x 11.5" x 8.25"/21cm x 29cm x 21cm

Multi-Therm™ shaker is a temperature controlled vortexer, useful for a variety of molecular biology applications including Denaturation of DNA, RNA and proteins, lipid extractions, reverse transcription, yeast and bacteria cultivation, DNA/plasmid isolation, restriction digests, gentle thawing of biological materials.

Despite its modest 8"x11" footprint, all popular tubes and plates are compatible, including as many as six 50ml tubes. Speed, time and temperature settings are continuously visible on the LCD, simultaneously showing both actual and selected values. Integral over-temperature control ensures long life, safety and sample integrity.

MODEL	DESCRIPTION
H5000-HC	MultiTherm Shaker with heating and cooling
H5000-H	MultiTherm Shaker with heating only

#### Blocks separately:

H5000-02	Block, 96 x 0.2ml or one PCR plate
H5000-05	Block, 54 x 0.5ml
H5000-CMB	Block, combination 15 x 0.5ml and 20 x 1.5ml
H5000-15	Block, 35 x 1.5ml
H5000-20	Block, 35 x 2ml
H5000-12*	Block, 24 x 12mm (200 to 1200 rpm/Ambient -10° to 100°C)
H5000-150*	Block, 12 x 15ml (200 to 750 rpm/Ambient -10° to 100°C)
H5000-500*	Block, 6 x 50ml (200 to 750 rpm/Ambient -10° to 100°C)

\*Note: The larger mass of this block results in a reduced speed and temperature range.

### VorTemp 56 Incubator/Shaker



Designed for simultaneous heating and mixing of small samples, features interchangeable platforms for microtubes and microplates (both platforms included). Temperature is adjustable over a broad range, making the unit useful for a variety of applications, mechanical convection provides a uniform and stable environment within chamber. May also be used in cold room for subambient applications. Shaking speed as well as acceleration rates are adjustable. Acceleration can be set to three different levels to protect delicate samples. Self diagnostic software continuously monitors unit for proper temperature and shaking speed, alerting user to any errors. Heating and shaking are controlled by feedback loops which precisely maintain chosen parameters, independent of load or voltage fluctuations.

#### Specifications:

**Temperature range:** Ambient +5° to 100°C

**Temperature accuracy:** ±0.5°C

**Speed range:** 200-1500 rpm

**Motion/orbit:** Horizontally circular/3mm

**Capacity:** 56 x 1.5/2ml tubes

**Dimensions:** 8.9" x 12.3" x 8.9"/22.5cm x 12.3cm x 22.5cm

MODEL	DESCRIPTION
S2056A	VorTemp 56 Incubator/Shaker complete with microtube and microplate platforms
S2056-R	Additional tube rack/workstation
C1205	Individual adapters for 0.5/0.6ml tubes, pack of 6
C1206	Individual adapters for 0.4ml tubes, pack of 6
C1222	Individual adapters for 0.2ml tubes, pack of 6
S2056-Q	Extra microplate platform for Vortemp 56

**Other models and capacities available online or by email. Please visit [www.braintreesci.com](http://www.braintreesci.com) or email [info@braintreesci.com](mailto:info@braintreesci.com) for details and pricing.**



## Incu-Shaker Mini



- ▶ Exceptional temperature uniformity
- ▶ Extremely compact, just 11" wide
- ▶ Exchange flask clamps in one second with the MAGIC CLAMP™ magnetic system

Incu-Shaker™ Mini is the most compact shaking incubator in its class. Despite the remarkably small footprint, a large 11.5" x 9.5" work space accepts several platforms for use with a variety of flasks, tubes and other common vessels.

Standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, petri dishes and staining trays.

Convenient MAGIC CLAMP™ platform is also available for use with Erlenmeyer flasks and test tube racks. Unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

Temperature, shaking speed and run time are displayed on large LED control panel located on front of unit. Integral microprocessor includes a constant monitoring system that verifies and maintains accuracy through duration of program. Sophisticated over-temperature and over-speed controls ensure long life, safety and sample integrity.

Applications: Bacterial suspensions, staining/destaining, tissue/cell culture, gel washing, solubility studies, general mixing, diagnostics, general incubation

### Technical Data:

**Temperature range:** Ambient +5 to 60°C (Increments of 0.1°C)

**Temperature uniformity:** ±0.25 %

**Temperature accuracy:** ±0.1 %

**Shaking speed range:** 30 to 300 rpm (Increments of 1 rpm)

**Shaking orbit:** 19mm (3/4")

**Platform dimensions:** 9.5" x 11.5"/ 23.5cm x 29.2cm

**Exterior dimensions:** 11" x 15.7" x 10.5"

(lid open, height = 25")

28cm x 40cm x 27cm

(lid open, height = 63cm)

MODEL	DESCRIPTION
H1000-M	Incu-Shaker™ Mini Shaking Incubator
H1000-MR	Magic Clamp™ universal platform for flasks and tube racks (clamps sold separately)
H1000-MR-500	Clamp for Magic Clamp platform, 500ml (max. 5)
H1000-MR-250	Clamp for Magic Clamp platform, 250ml (max. 8)
H1000-MR-125	Clamp for Magic Clamp platform, 125ml (max. 12)
H1000-MR-50	Clamp for Magic Clamp platform, 50ml
H1000-MR-1550	Tube rack for Magic Clamp platform, 12x50 and 21x15ml conical tubes (max. 1)
H1000-P-500	Dedicated platform with 5 x 500ml Erlenmeyer flask clamps attached
H1000-P-250	Dedicated platform with 8 x 250ml Erlenmeyer flask clamps attached
H1000-P-125	Dedicated platform with 12 x 125ml Erlenmeyer flask clamps attached
H1000-P-MP	Dedicated platform, 4 x microplates (standard or deepwell)
H1000-P-SP	Spring rack platform, for uncommon vessels and containers

## Enduro MiniMix

*Perfect for western blots*



Labnet's Enduro MiniMix combines motions of an orbital shaker and a rocker to produce three dimensional action. The benefit of this type of motion is that it is both gentle and thorough.

The pitch and speed of the Enduro MiniMix are fixed to provide the optimal conditions for processing western blots and staining gels. Tilt angle is large enough to provide thorough distribution of solutions, yet small enough to keep the center of blot from drying out. Minimal amounts of solution can be used, conserving valuable probes and antibodies.

Mixer is supplied with a non-slip rubber mat to help keep boxes in place on platform. Housing and platform are easy to clean and decontaminate when needed. For temperature controlled incubations, the Enduro MiniMix may be used in a cold room or an incubator. Lightweight and compact and easily moved where needed.

Available in two sizes: Small boxes have a capacity for 3-5ml of solution and are perfect for mini protein gels, such as those used in the Enduro Mini PAGE System; Large boxes will hold 6-10ml and are sized for larger mini protein gels. Boxes are acrylic and feature a hinged lid with a positive catch. Supplied in packages of 10.

- ▶ Designed for processing blots and staining gels
- ▶ Optimal fixed speed and tilt
- ▶ Three dimensional motion
- ▶ Enduro Blot boxes are perfect for protein gels

### Specifications:

**Speed:** 115V/230V, 18 rpm/20 rpm

**Motion:** 3D, nutating

**Angle:** 5°

**Ambient operating range:** +4°-65°C

**Dimensions:** 8" x 7" x 4.5"/20.3cm x 17.8cm x 10.5cm

MODEL	DESCRIPTION
S0600	Enduro MiniMix 3D Shaker with 20 x 16.5cm tray and non-slip rubber mat
E2110-BBS	Enduro Blot box, 9.1 x 6.6cm, 3-5ml capacity, 10/pack
E2110-BBL	Enduro Blot box, 11.7 x 8.9cm, 6-10ml capacity, 10/pack





## Lab Equipment

### MultiGene Mini

Compact and lightweight thermal cycler is packed with features typically found on larger thermal cyclers.

Accuracy and uniformity combine with fast ramping rates to provide quality results. An algorithm calculates sample temperature, based on volume, to control heating and cooling of the block. Samples reach programmed temperatures quickly, without any overshoot or lagging. Powerful Peltier units provide ramping rates as fast as 5°C/second.

Programming is simple and intuitive. Control pad combines function keys, a key pad and arrow keys for easy navigation and entering of parameters. Large display is easy to read. In addition to standard parameters of time and temperature, software also allows for successive time and temperature increments and decrements, auto-restart after a power failure, end of cycling elongation steps and extended soaks at 4°C. 100 programs, each with up to nine segments, can be stored in memory.

Units come standard with adjustable heated lid. Lid features a slip gear to provide proper compression to prevent sample evaporation without deforming the tubes.



MODEL	DESCRIPTION
TC020-24	MultiGene Mini with 24 x 0.2ml block
TC050-18	MultiGene Mini with 18 x 0.5ml block
TC020-02-C	0.2ml tubes, domed cap, clear, 1000/pk
TC020-02-A	0.2ml tubes, domed cap, assorted colors, 1000/pk
TC050-05F-C	0.5ml tubes, flat cap, clear, 1000/pk
TC050-05F-A	0.5ml tubes, flat cap, assorted colors, 1000/pk

### MultiGene® OptiMax Thermal Cycler

The MultiGene OptiMax Thermal Cycler produces consistent, reliable results while making gradient technology affordable. This unit is extremely simple to program, compact in design and built to perform.

Rapid heating and cooling of precision machined sample block is achieved by six Peltier modules.

Temperature sensors across the block feed data to the microprocessor to control operation of the system and ensure accuracy and uniformity.

Two types of temperature control are selectable:

- ▶ Block control uses actual temperature of the block to adjust heating and cooling input
- ▶ Tube control uses a sophisticated algorithm program that calculates sample temperature based on volume and triggers heating and cooling accordingly to provide quick temperature change in sample and minimize over-and-undershoot



Programming is very intuitive. Large, back-lit LCD displays alphanumeric characters and a graphical representation of program steps. Simple, on-screen instructions guide user through programming process. MultiGene OptiMax is provided with common pre-programmed protocols which are easily edited by navigating to appropriate parameter with arrow keys and entering a new value.

A variety of applications can be performed from single temperature soaks to sophisticated multi-step programs. All of these are easily set up. Time or temperature of a cycling step can be automatically increased or decreased during successive cycles. This is useful for "touchdown" applications and extending annealing times as enzyme is depleted. Programs may also be paused while running. During operation, actual times and temperatures are displayed. Estimated run times are automatically calculated and a log of the last run can be displayed or downloaded to a PC.

#### Gradient Capability

MultiGene cycler block can be programmed to operate with uniform temperature across the block for consistent results, or with a temperature gradient for protocol optimization.

Heated lid is fully adjustable to provide proper pressure for use with different height tubes as well as plates. A compression mat is provided to ensure even pressure when using plates. For optimum performance, temperature of the lid may be programmed. To ensure that users never come in contact with hot surface, lid slides back and away from samples. In addition to eliminating risk of burns, this also provides complete access to samples. Lid can also be flipped up for cleaning.

#### Specifications:

**Sample capacity:** 1 x 96 well plate, 12 – 8 x 0.2ml strip tubes, 96 x 0.2ml tubes

**Programmable temperature range:** 4°C to 99.9°C

**Temperature accuracy/uniformity:** ±0.5°C/±0.5°C

**Heating/cooling method:** Peltier

**Maximum heating/cooling rate:** 4°C/3°C per second

**Dimensions:** 24cm x 42cm x 25cm

- ▶ Temperature control: calculated or block
- ▶ Temperature range of 6-segment blocks 30°C to 99°C. Temperature of 6-segment blocks can be set independently
- ▶ Maximum temperature difference between 6-segment blocks 24°C
- ▶ 6-segment temperature blocks 6 temperature blocks in 4 x 4 well format
- ▶ Programmable lid temperature 60° to 65°C, 100° to 115°C
- ▶ Program memory 200 complete programs
- ▶ Temperature increments/decrements
- ▶ Time increments/decrements
- ▶ User program folders 50 sets
- ▶ Allows for password protected programs
- ▶ Communication USB and RS232 ports

MODEL	DESCRIPTION
TC9610	MultiGene® Optimax Thermal Cycler



## My Block™

### A personal sized Drybath



Benchtop control of sample temperature has never been this easy or economical. MyBlock Mini fits almost anywhere and can even be used "on-the-go" in cars, boats or wherever a 12 volt power source is available. Its simple touch pad control with digital display is designed for "set and walk away" temperature selection and unrivaled accuracy. At less than 4.4 inches wide, MyBlock Mini is truly the first personal block incubator.

- ▶ Compact, fits in the palm of your hand
- ▶ Exchangeable blocks, for tubes 0.2 to 50ml
- ▶ Clear hinged cover ensures temperature uniformity

#### Technical Data:

**Temperature range:** Ambient +5 to 100°C

**Temperature accuracy:** ±0.5°C

**Temperature increments:** 0.1°C

**Temperature uniformity:** ±0.2°C

**Dimensions:** 4.4" x 5.9" x 4"/11cm x 15cm x 10cm

MODEL	DESCRIPTION
BSH200	MyBlock Mini Digital Dry Bath with block lifter (Blocks sold separately)
BSH100-02	Block, 40 x 0.2ml or 5 x PCR strips
BSH100-05	Block, 24 x 0.5ml
BSH100-15	Block, 15 x 1.5ml
BSH100-1520	Block, 15 x 1.5 or 2ml
BSH100-150	Block, 4 x 15ml*
BSH100-500	Block, 2 x 50ml*
BSH100-A12V	Vehicle power adapter (sold separately)

\*Not compatible with clear cover

## Digital Dry Bath



### Digital performance at analog prices

A microprocessor regulates the high wattage heaters to provide precise, accurate control. Exact desired temp is easily set using arrow keys on sloped control panel while values are shown on large digital display. No checking of a thermometer and readjusting temp necessary. User calibration feature allows for easy calibration. An RS232 port is provided for monitoring and recording temperature.

Stainless steel block chamber acts as a heat sink and provides a uniform transfer of heat from heating elements to interchangeable blocks ensuring all samples receive the same temperature treatment, regardless of their position in the block.

- ▶ Stainless steel block chamber
- ▶ Single or dual block units available
- ▶ Nonporous aluminum with anodized surface
- ▶ Thermometer well, required only for calibration purposes

#### Specifications:

**Temperature range:** Ambient +5° to 150°C

**Temperature resolution:** 0.1°C

**Temperature uniformity:** ±0.2°C

**Temperature accuracy:** ±0.3°C

MODEL	DESCRIPTION
D1100	Digital Dry Bath, single block capacity
D1200	Digital Dry Bath, dual block capacity
D1101	Solid block for machining (no holes)
D1102	Block, 48 x 0.2ml PCR tubes or 6 x 0.2ml
D1102A	Block, 24 x 2ml tubes
D1105	Block, 24 x 0.5ml tubes
D1105A	Block, 24 x 1.5ml tubes
D1106	Block, 35 x 6mm tubes
D1112	Block, 20 x 12mm tubes
D1115-Tall	2 x 15ml centrifuge tubes

## MyBlock™ HL Mini Dry Bath



The MyBlock™ HL is the first and only mini heat block featuring a heated lid for protecting samples against unwanted condensation and evaporation. Both the block and lid temperature can be selected independently in increments of 0.1°C, making this MyBlock the ideal choice for the most temperature sensitive applications, including immunoassays, LAMP assays, enzyme reactions and other temperature hyper-sensitive procedures.

- ▶ Heated lid prevents evaporation and condensation
- ▶ Compact, fits in the palm of user's hand
- ▶ Independent temperature control of lid and block
- ▶ Exchangeable blocks for 0.2 to 0.5ml tubes
- ▶ Room temperature to 37°C in just 2 minutes

#### Specifications:

**Temperature range:** Ambient +5 to 100°C

**Temperature accuracy:** ±0.3°C

**Temperature increments:** 0.1°C

**Temperature uniformity:** ±0.2°C

**Dimensions:** 4" x 6" x 4.5"/10.5cm x 15cm x 11.5cm

MODEL	DESCRIPTION
BSH200-HL	MyBlock™ HL Mini Dry Bath with Heated Lid,
<b>Additional Blocks</b>	
BSH100-02	Block, 40 x 0.2ml tubes or 5 PCR strips of 8 tubes each
BSH100-05	Block, 24 x 0.5ml centrifuge tubes



## Lab Equipment

### New! ENDURO™ Semi-Dry Blotter

The ENDURO™ Semi-Dry Blotter provides great flexibility in a lab since it can be used for all types of blotting: Western, Southern, and Northern. Blotting with the ENDURO™ Semi Dry Blotter typically can be done in 15 to 30 minutes making it fast and easy. Set up procedures are easy and economical with little buffer needed. Screw down lid adjusts to varying gel thicknesses and sizes while platinum coated electrodes provide uniform pressure ensuring even transfers. For total blotting solutions use with ENDURO™ 250V, 3000mA high current power supply.

- ▶ Western, Southern, and Northern blots
- ▶ Rapid transfer times
- ▶ Uniform head dispersion
- ▶ Variable gel thickness
- ▶ Minimal buffer volume

#### Specifications:

**Buffer Volume:** 20ml

**Sample Capacity:** 4 Blots: 8 x 8.5cm  
2 Blots: 16 x 8.5cm  
1 Blot: 16 x 17.5cm



MODEL	DESCRIPTION
E2020-SDB	Enduro Semi-Dry Blotter
R1000-100BP	Enduro MW Marker, 100 bp ladder (100-2,000 bp), 0.1ug/ul, 500ul vial
R1000-1KB	Enduro MW Marker, 1 kb DNA ladder (300-10,000 bp), 0.1ug/ul, 500ul vial

### DyNA Light UV Transilluminator

With its dual intensity light source, the DyNA Light UV Transilluminator is suitable for both analytical and preparative work. Large viewing surface accommodates all popular gel sizes.

The intensity of the DyNA Lights 302 nm UV light source can be adjusted to two levels, normal and low, at the touch of a button.

Low setting provides a 20% reduction in intensity to minimize damage to nucleic acids during longer exposures. Full intensity produces clear and bright illumination for documentation work.

Users are protected by a hinged, transparent shield of UV blocking acrylic that covers the top surface of the transilluminator. Cover can be raised to proper angle for viewing samples and lowered when not in use to protect viewing surface from dust and scratches. Built-in filter guard reduces solarization and protects UV filter, extending its service life up to 5000 hours.

#### Specifications:

**UV light source wavelength:** 302nm

**Intensity settings:** Normal-100%, Low-80%

**Large viewing surface:** 21 x 26cm

**Cabinet dimensions:** 18.5" x 13.4" x 4.3"/47cm x 34cm x 11cm

MODEL	DESCRIPTION
U1000	Dyna Light UV Transilluminator



### ENDURO® Gel XL

Includes all components necessary to cast and run horizontal gels: gel trays, combs, casting stand, gel tank and digital power supply. Migration tank, gel trays and multichannel combs are molded for leak-proof performance and a long service life. Direct connection of power supply into gel box eliminates need for power leads.



Pressing eject button separates the gel box and power supply. Reconnecting is easy – just press two pieces together. Power supply can be set to either constant voltage or constant current with automatic crossover between the two parameters. Parameters are shown on large digital display that is easily visible from a distance.

Three different gel options for the ENDURO® Gel XL: 12.5 x 12cm, 12.5 x 6cm and 6 x 6cm. One larger gel with multiple combs will accommodate up to 112 samples, or run two small gels or four micro gels at the same time. Cassettes protect fragile electrodes from damage and allow for easy replacement.

A magnetic sensor allows current to flow to electrodes only when lid is in place. If lid is removed while system is operating, current is immediately shut down. Lid of the box is vented to dissipate heat produced during electrophoresis. A clear window over the gel platform aids in visualizing the gel while it is running.

#### Specifications:

**Output:** voltage/current 10V to 150V/10 to 400 mA

**Timer:** 0-99 hr or continuous, audible alert

**Program memory:** Last programmed parameters saved

**Electrical universal:** 100V- 240V, 50/60 Hz

**Overall Dimensions:** 10" x 6.7" x 2.5"/24.5cm x 17cm x 6.2cm

**Gel Capacity:** 1 large (12.5 x 12cm), 2 small (12.5 x 6cm), 4 micro (6 x 6cm)

- ▶ Power-150v/400ma
- ▶ Control-set voltage, amperage and time
- ▶ Flexibility-runs 6 x 6cm to 12.5 x 12cm gels
- ▶ Throughput-up to 112 samples at once
- ▶ Convenience-casting set and combs included

MODEL	DESCRIPTION
E0160	Enduro Gel XL Electrophoresis System, includes gel tank, power supply and standard casting set
E0161	Large Gel Tray Set (12.5 x 12cm), pack of 2
E0162	Small Gel Tray Set (12.5 x 6cm), pack of 2
E0163	Micro Gel Tray Set (6 x 6cm), pack of 4
E0164	Large Comb Set, 14/28 teeth, reversible, pack of 2
E0165	Small Comb Set, 5/8 teeth, reversible, pack of 2
E0166	Micro Casting Set, includes 4 micro gel trays, 2 small combs and a casting stand
E0167	Casting Stand, for all gel sizes
E0168	Standard Casting Set, includes 1 large and 2 small gel trays, 4 large combs and a casting stand





## Gemini Cautery System

### Dual Operating Temperatures



Battery operated system provides two different operating temperatures: 1300°F and 2200°F. Easily replaceable, autoclavable, nickel-chrome tips require less power and provide longer battery life. Convenient battery spacer converts hand piece from high temp to low temp. Comes complete with standard AA batteries, battery spacer, 2 each tips -

sizes 5mm and 10mm, all in a hard plastic case with die cut foam for convenient storage.

MODEL	DESCRIPTION
GEM-5917	Gemini Cautery System
GEM-5918	Replacement Tips, 5 x 1mm (box of 10)
GEM-5919	Replacement Tips, 10 x 1mm (box of 10)

## Ideal Micro-Drill™



Designed for research applications that require surgical burrs and trephines. Drill is constructed of light-weight aluminum alloy for balance and control and powered by a rechargeable 6-volt nickel cadmium battery. Under normal operating conditions unit will function for 8 hours between charges. Drill comes with five burrs: 0.006mm, 0.008mm, 0.010mm, 1.012mm, 1.016mm

- ▶ Rechargeable
- ▶ Light-weight design
- ▶ No special tools needed to change burrs
- ▶ Hard plastic case with die-cut foam for convenient storage
- ▶ Excellent balance and handling

### Specifications:

**Length (without burr):** 17.5cm

**Diameter:** 1.9cm

**Power:** 6-Volts DC

**Speed:** 12,000 rpm

**Stall torque:** 1.25 oz/in

MODEL	DESCRIPTION
MD-1200	Ideal Micro-Drill™

## New! NSET Non-Surgical Embryo Transfer Device



ParaTechs Corporation has revolutionized embryo transfer in mice with the NSET™ non-surgical embryo transfer device for mice. NSET allows non-surgical embryo transfer for production of research (transgenic or knock-out) mice. NSET is a major refinement of murine embryo transfer as it eliminates pain and stress of surgery and anesthesia.

MODEL	DESCRIPTION	QTY
NSET	Non-Surgical Embryo Transfer Device	10/bx

## New! Liquid Nitrogen Cooled Mini Mortar and Pestle Set

Freeze and process tiny tissue samples within a microcentrifuge tube. Stainless steel mortar has a welded fixture to hold a 1.5ml microcentrifuge tube. Mortar is suspended above a stainless steel cavity which holds liquid nitrogen and is nested in a heavily insulated blue polyethylene housing.

- ▶ Permits grinding of smaller amounts of tissue right in a 1.5ml microcentrifuge tube resulting in reduced sample loss and collection time
- ▶ Prevents tube from cracking by eliminating direct contact with liquid nitrogen
- ▶ Includes 5" long stainless steel pestle with 4" W (10.2cm) x .75" D (1.9cm) polyethylene handle
- ▶ Housing overall dimensions: 6.5" D (16.5cm) x 4.5" H (11.4cm); suction feet keep it stable on the workbench
- ▶ Removable, insulated mortar handle, 4" L (10.2cm)

MODEL	DESCRIPTION
372600100	Liquid Nitrogen Cooled Mini Mortar and Pestle Set

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## Lab Equipment

### New! BeadBug™ Microtube Homogenizer



- ▶ Extremely powerful mixing for lysis, grinding or homogenization
- ▶ Faster and more effective than tissue grinders
- ▶ Mix 1, 2 or 3 tubes simultaneously
- ▶ Extremely compact, less than 7" wide
- ▶ Eliminates cross contamination associated with hand held homogenizers

BeadBug™ is a high energy benchtop homogenizer that sets the performance standard for personal sized cell disruption and lysis instruments.

Simultaneous homogenization of up to 3 samples takes place (often within 45 seconds) inside disposable 2ml screw cap microtubes. Optimized mixing motion causes rapid cell disruption through constant high velocity impact from hardened micro-beads chosen specifically for your sample type.

Developed for samples too tough to be homogenized in a common lab vortexer, BeadBug provides a convenient and economical alternative to traditional homogenizers. With up to three tube capacity and a foot print of just 7" x 8", BeadBug is the ideal homogenizing instrument for low to medium throughput laboratories.

#### Specifications:

**Speed range:** 2,700 to 4,000rpm

**Capacity:** 3 x 2ml (screw cap/non-skirted)

**Timer:** 3 sec. to 3 min.

**Operating temperature range:** +4°C to +65°C

**Dimensions:** 6.9" x 8.3" x 5.3"/17cm x 21cm x 13.5cm

MODEL	DESCRIPTION
D1030	BeadBug Microtube Homogenizer

#### Prefilled Tube Kits, non-skirted with caps

MODEL	DESCRIPTION	BEAD SIZE	QTY
D1031-01	Standard Glass Beads	Ø: 0.1mm	50/pk
D1031-05	Standard Glass Beads	Ø: 0.5mm	50/pk
D1031-10	Standard Glass Beads	Ø: 1mm	50/pk
D1032-01	Triple-Pure High Impact Zirconium Beads	Ø: 0.1mm	50/pk
D1032-05	Triple-Pure High Impact Zirconium Beads	Ø: 0.5mm	50/pk
D1032-10	Triple-Pure High Impact Zirconium Beads	Ø: 1mm	50/pk
D1032-15	Triple-Pure High Impact Zirconium Beads	Ø: 1.5mm	50/pk
D1032-30	Triple-Pure High Impact Zirconium Beads	Ø: 3mm	50/pk
D1033-28	Stainless Steel (Acid-Washed) beads	Ø: 2.8mm	50/pk
D1032-SK	Triple-Pure High Impact Zirconium Beads Starter Kit, Ø: 0.1, 0.5, 1, 1.5 and 3mm		10 each

### New! Bullet Blender® Homogenizer

#### Aim for higher efficiency, superior results and greater value

Versatile Bullet Blender is ideal for a wide range of laboratory tasks, including disrupting, homogenizing, dissociating or lysing cells, tissues and plant matter. Thousands of researchers rely on this high quality instrument to achieve consistent results while saving time, effort and money.



- ▶ **Easy operation** - simply add samples, beads and buffer to tubes and place in Bullet Blender. Select run time and speed, close the lid and press "start". No clamp plates or locking rings to fiddle with
- ▶ **High-efficiency technology** - using patented striking technology, "bullets" in the Bullet Blender repeatedly strike tubes resulting in vigorous agitation of samples and collisions between samples and beads inside tubes
- ▶ **High yields** - delivers high efficiency under microprocessor-controlled conditions for consistent results. Due to unique design, minimal heat preserves sample quality
- ▶ **High throughput** - runs up to 24 samples in parallel, so work is done in a faster, easier manner. No probes to clean between samples so there is no cross contamination
- ▶ **Best value** - more affordable due to a simple, reliable design. Standard tube compatibility keeps operating costs low
- ▶ **Choose from a variety of beads** - including RNase free, covering a wide array of applications and samples, packaged in bulk or pre-loaded in tubes. Bullet Blender comes with a starter pack sampling of beads. Call for list.

#### Specifications:

**Capacity:** Process up to 24 samples in 1.5 or 2ml tubes, up to 12 samples in 5ml tubes, or up to 8 samples in 50 ml tubes

**Tubes:** Uses commonly available tubes

**Environment:** Operational in constant 4°C to 50°C. Use in refrigerator/cold room or an incubator

**Air cooling option:** Keeps samples near ambient temperatures

**Speed control:** Adjustable to handle gentle vortexing to homogenization of bones

**Dimensions:** Most models have a small footprint:

9" W x 10" D/22cm x 25cm

Our largest model is 13" W x 14" D/33cm x 35cm

MODEL	DESCRIPTION	SAMPLE CAPACITY	TUBE/ SAMPLE SIZE
BBX-24B	Bullet Blender STORM	1-24	1.5-2ml* 0.01g-0.3g
BBY-24M	Bullet Blender Blue 5	1-12	5ml screw cap tubes 0.10g - 1g
BB50-DX	Bullet Blender 50 DX	1-8	50ml tubes 0.10g - 3g

\*Screw cap tubes also available

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## Infrared Microsterilizer



BactiZapper™ has an asbestos-free core element that uses infrared heating to produce 815°C (1500°F). It completely sterilizes

micro-organisms in 5-7 seconds. BactiZapper uses well-proven technology to provide instant sterilization of platinum inoculating loops, needles, glass tube pipette mouths and various metal and borosilicate glass instruments. Ceramic heating element is safely enclosed in a perforated stainless steel guard chamber, protecting users from accidental contact with extreme temperatures of the core area. It is extremely compact, convenient and can be used in anaerobic and aerobic chambers.



- ▶ Complete infrared sterilization in 5-7 seconds
- ▶ Safe, convenient and no spatter
- ▶ Ideal for platinum loops, needles and tube mouths

### Specifications:

**Max temperature:** 815° C/1500° F

**Sterilization:** 5-7 secs

**Chamber diameter:** 0.55"/14mm

**Chamber length:** 3.94"/100mm

**External dimensions:** 4" x 6" x 6.5"

MODEL	DESCRIPTION
B1000	BactiZapper Infrared Microsterilizer

## Germinator 500

### Dry sterilize surgical instruments in seconds



NIH guidelines recommend sterilizing instruments for small animal surgery. Hot glass bead sterilizers are ideal for this application.

**Stays cool to the touch** - the chassis stays cool, even at the end of a full day of operation. Air above unit is cool enough to insert an instrument into well without discomfort. Insert surgical instrument into well, sterilization of inserted parts by dry heat (250°C) takes 2-5 seconds. Handles of instruments, outside heat, do not get hot. Metal in beads is heated only on

the surface, not to the depth, so cooling is quick after removal. Within 30 seconds, surgical instruments are cool enough to use.

### Specifications:

**Warm up time:** 20 min.

**Working temp:** 250°C (approximately 500°F)

**Sterilization time:** 2-5 sec.

**Well size:** 20cm deep x 5cm diameter.

*Beads eventually, after extensive use, wear to powder. Replace when it becomes difficult to push instruments in deep enough.*

MODEL	DESCRIPTION
GER-5287	Dry Sterilizer
GER-5289	Glass Bead Refill Package

## BIOCLAVE™ Research Autoclaves



B4000-16



B4000-M

Steam sterilization of research tools and consumables is convenient and affordable with BIOCLAVE™ digital research autoclaves. With a width of under 18" (under 14" for BioClave Mini), both models fit comfortably on even the most crowded benchtop. Despite the space-saving exterior dimensions, stainless steel sterilization chambers are surprisingly large, accommodating a variety of liquids, media, instruments, glassware, plasticware and other common laboratory items. Both models include a mechanical and electrical safety interlock that prevents the door from being opened until pressure has reached zero PSI. Three trays (two with the BioClave Mini) are supplied with each unit, along with a convenient tray removal tool. With large digital displays and fully automatic operation, all segments of sterilization cycle (fill, sterilize, exhaust and dry) commence and run to completion by simply pressing the start button.

### BIOCLAVE 16™ AutoClave

16 liter BioClave offers three cycle options (standard programs), which are preset for sterilization of liquids, wrapped instruments or unwrapped instruments/plasticware. A fourth "Dry Only" option is also available for additional drying time at the end of a cycle. For special applications, requiring variations in cycle parameters, all settings on the BioClave 16 are fully adjustable.

### BIOCLAVE Mini™ AutoClave

8 liter BioClave Mini is preprogrammed to meet basic sterilization needs. Although temperature can be selected at either 121°C or 134°C, sterilization time is fixed.

MODEL	DESCRIPTION
B4000-16	Bioclave 16™ AutoClave
B4000-M	Bioclave Mini™ Autoclave

## Sentry Ultrasonic Cleaner



Sentry Ultrasonic Cleaner is a high-efficiency cleaner specially developed to clean surgical instruments. Ultrasonic waves pump micron-sized bubbles into the water. Bubbles fit into the tightest spaces which would be impossible to clean by traditional methods. When bubbles implode, water hits the instrument at speeds up to 250 mph providing a very powerful cleaning action.

- ▶ High-capacity elongated tank easily accommodates long surgical instruments and other equipment that may not fit into desktop ultrasonic cleaners
- ▶ Uses a powerful generator to create ultrasonic waves that provide effective cleaning action. When heavy bio-burden or oily residue is present, Sentry's cleaning power can be enhanced with a heating feature that warms water up to 65°C
- ▶ Operates quietly without disrupting work in laboratory. Lid decreases noise and includes a viewing window to monitor progress.
- ▶ Takes up little space for convenient storage on lab bench. Light weight for easy transport or storage

MODEL	DESCRIPTION
ULTRA-9911	Sentry Ultrasonic Cleaner





## Scales and Balances

### New! Core™ Compact Portable Balances

- ▶ Full range tare
- ▶ 9 weighing units
- ▶ Zero tracking
- ▶ Simple 4 button operation
- ▶ Backlit LCD display
- ▶ Stainless steel pan
- ▶ ShockProtect™ overload three-point protection
- ▶ Can be stacked for storage (120mm pan size only)
- ▶ Lock down mounting slot for Kensington™ type lock and cable
- ▶ Dual tare keys
- ▶ Lightweight and portable
- ▶ Modern low profile design
- ▶ Color coded, sealed keypad
- ▶ Low cost and simple to use
- ▶ External calibration
- ▶ Battery power (6 x AA Batteries)
- ▶ Auto sleep/power down function to save battery life
- ▶ AC Adapter



MODEL	CAPACITY	PLATFORM SIZE	READABILITY
CQT 202	200g	4.7 Ø/120mm Ø dia	0.01g
CQT 251	250g	4.7 Ø/120mm Ø dia	0.1g
CQT 601	600g	4.7 Ø/120mm Ø dia	0.1g
CQT 1501	1500g	4.7 Ø/120mm Ø dia	0.1g
CQT 2601	2600g	5.7 Ø/145mm Ø dia	0.1g
CQT 2000	2000g	5.7 Ø/145mm Ø dia	1g
CQT 5000	5000g	5.7 Ø/145mm Ø dia	1g

### Dune™ Compact Balances

- ▶ 3 weighing units (g, lb, oz)
- ▶ Full range tare
- ▶ Zero Tracking
- ▶ Large easy to read LCD display
- ▶ Overload protection
- ▶ Color coded, sealed keypad
- ▶ Lightweight and portable
- ▶ Simple user-friendly operation
- ▶ Precision load cell technology
- ▶ Splashproof to protect from accidental spills
- ▶ External calibration
- ▶ Battery power (6 AA batteries)
- ▶ Low battery indication
- ▶ Auto sleep/power down function to save battery life
- ▶ AC Adapter



SPECIFICATION	DCT-201	DCT-2000	DCT-5000
Capacity	200g	2000g	5000g
Readability	0.1g	1g	2g
Pan Size	5.7" x 5.7"	5.7" x 5.7"	5.7" x 5.7"

### Specimen Box with cover



Specimen box holds rodents for weighing purposes.

#### Specifications:

**Dimensions:** 4"H x 9"W

**Weight:** 157g

MODEL	DESCRIPTION
SB-8053	Specimen Box with cover

### M-Prove Precision Balances

Sartorius M-Prove series are ideal balances and scales for educational, laboratories and research applications.

- ▶ Rugged housing made of ABS plastic with maximum overload protection
- ▶ Protective flip-down and removable plastic cover for shipping protection and stackable storage
- ▶ Integrated external calibration weights on models with capacity of 710 grams and below, unique durable design for multiple applications
- ▶ Applications include: counting, percent weighing, totaling, display hold, specific gravity, mass unit conversion
- ▶ 14 mass unit conversions - grams, ounces, pounds, pounds:ounce, pennyweight, troy ounces, grains, Newton, carats, Tael HK/Taiwan/Singapore/China, user defined
- ▶ Parts counting with selectable reference sample (1-100)
- ▶ Includes AC adapter
- ▶ External "one button" calibration with 3 weight options
- ▶ Lock-down capability
- ▶ Large 1" white back-lit display
- ▶ Battery operable with 9V block battery
- ▶ External calibration weights are stored in the balance
- ▶ Optional RS232 and USB interface kit available



MODEL	DESCRIPTION	READ	REPRO (±)	PAN SIZE
AY511	M-Prove 510g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY711	M-Prove 710g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY1501	M-Prove 1500g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY3101	M-Prove 3100g	0.1g	0.1g	5.5" x 5"/140 x 128mm

#### Accessories

YDP06	Data Printer, basic
YADAP-RS	RS232 Adapter, with 6' cable
YADAP-USB	USB Adapter, with 6' cable
YSW05	Software Wedge, for DOS and Windows®, including 5' cable (fits RS232)

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## T/FLEX® Plus Gloves

### Cut resistant gloves for animal handling



Gloves are suitable for the safe handling of small laboratory animals including rodents. T/FLEX® PLUS gloves are a 13 gauge seamless knit shell; material is Dyneema® engineered fibers plated with Lycra® -

Spandex®, Thermax® and the antimicrobial treatment Alphasan® combine to provide a comfortable glove featuring the highest cut resistance. Gloves conform to international safety standards for cut resistance.

MODEL	DESCRIPTION	SIZE
TFL-13G6	T/flex Plus handling gloves. . . . .	Extra Small
TFL-13G7	T/flex Plus handling gloves. . . . .	Small
TFL-13G8	T/flex Plus handling gloves. . . . .	Medium
TFL-13G9	T/flex Plus handling gloves. . . . .	Large
TFL-13G10	T/flex Plus handling gloves. . . . .	Extra Large

## Kevlar Deerskin Handling Gloves

Black deerskin leather glove, lined with 100% fine knit Kevlar. May be worn on their own for handling small animals. Fabricated for flexibility, comfort and safety during long periods of wear. Sold as pairs.



MODEL	DESCRIPTION	SIZE
KVL-LTH-S	Kevlar Deerskin Handling Gloves. . . . .	Small
KVL-LTH-M	Kevlar Deerskin Handling Gloves. . . . .	Medium
KVL-LTH-L	Kevlar Deerskin Handling Gloves. . . . .	Large
KVL-LTH-X	Kevlar Deerskin Handling Gloves. . . . .	Extra Large

## Armour Touch Metal Mesh® Gloves

### Protects hands from teeth and claws when handling small animals

YES! You have seen this material used for anti-shark suits.

Braintree Scientific's metal mesh gloves provide security and a sure grip. This is the original and only metal mesh glove for rodent handling.



**Don't be fooled by imitations!**

Experience shows animals are easier to control when handlers are relaxed and confident. Much better than leather since metal mesh is more flexible, is readily cleaned, won't stain or corrode and doesn't carry odors.

Gloves may be worn over surgical gloves. Adjustable buckle wrist band prevents slipping. Convert right to left by turning inside out. Order by size.

*Please note these gloves run large.*

MODEL	DESCRIPTION	SIZE
MMG-100	Armour Touch Metal Mesh Gloves . . . . .	Extra Small 7
MMG-100	Armour Touch Metal Mesh Gloves . . . . .	Small 8
MMG-100	Armour Touch Metal Mesh Gloves . . . . .	Medium 9
MMG-100	Armour Touch Metal Mesh Gloves . . . . .	Large 10

\*Price per glove - ambidextrous (approximate surgical glove size)

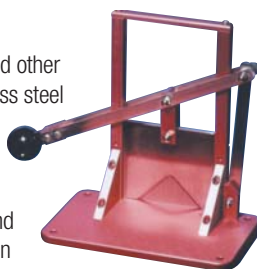


## Classic Guillotine

One stroke instantly decapitates rats, mice and other small animals. Blades are hand-honed stainless steel and form an opening 1.75" along each side. All surfaces are accessible to allow washing without disassembly.

Base can be mounted to a bench or board, and the handle can be easily reversed for operation with either hand.

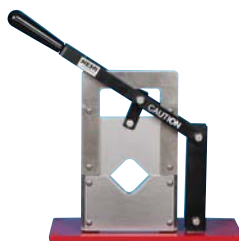
We recommend the use of DecapiCones® to ensure additional safety when dispatching rats or mice.



MODEL	DESCRIPTION
RG-100	Classic Guillotine

## New! Nemi Guillotine

- ▶ Easy blade replacement
- ▶ Mounting plates for all models (optional)
- ▶ Manufactured using only the finest materials
- ▶ Built to stay in your lab
- ▶ Extremely cost effective



MODEL	DESCRIPTION
NS-802	Nemi Guillotine, Rats and Mice, 2" opening along each side
NS-804	Nemi Guillotine, Rats and Mice, 4" opening along each side
NS-806	Nemi Guillotine, Larger subjects, 6" opening along each side

Replacement blades available online

## DecapiCones®

### Economical mouse and rodent restrainer



DC-200



MDC-200

Make injections and decapitation quicker and easier with Braintree's DecapiCones®. Tapered plastic film tubes provide quick and easy restraint of rats, mice and other small animals. I.P. injections can be made directly through the film! DecapiCones® restrain post-decapitation kicking and prevent personal contact with feces or urine.

A unique dispenser holds DecapiCones® open and ready for use. Simply hold DecapiCone in one hand and introduce the animal with the other. Animals enter readily, heading for the breathing hole at the small end. Then roll and squeeze the large end closed.

May be used repeatedly for injections and discarded when soiled. For decapitation, hold at the rear and insert the small end into decapitator.

MODEL	DESCRIPTION
MDC-200	DecapiCones® for Mice (Includes: 2 dispensers, 100 bags each. Total 200 cones)
DC-200	DecapiCones® for Rats (Includes: 4 dispensers, 50 bags each. Total 200 cones)
DCL-120	DecapiCones® for Large Rats (500-800g) (Includes: 4 dispensers, 30 bags each. Total 120 cones)

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## Clippers and Trimmers

### Super Professional Rechargeable Animal Clipper with Sensa-Charge

A powerful rechargeable clipper designed for all day heavy-duty use. Clipper will run continuously for one hour with a fully charged battery pack – recharges within one hour. Maintenance free, no oiling or greasing of internal parts. Detachable blades for ease of changing and cleaning. High speed motor, 3600 strokes per minute (3600 rpm). Special refresh button recharges and conditions battery to maximum performance overnight.

On/Off switch with lock, break resistant housing, contoured to fit your hand. All Andis® AG and Oster® A5 Blades fit Super AGR®+ Clipper. Push button blade release locks blade into position until changing of blade is desired.

Power Pack is a high capacity battery pack for extended run time. Battery can be charged separately from clipper. Additional rechargeable battery packs available. Home base is equipped with Sensa-Charge® a unique charging system that will not overcharge battery. LED lights indicate charging mode. Recharges and conditions battery to maximum performance.



Cordless

MODEL	DESCRIPTION
CLP-64800	Super Professional Rechargeable Clipper

#### Replacement Blades

CLP-64084B	#40 Surgical S/S Detachable
CLP-64071B	#10 Medium Cut Detachable Blade
CLP-64160B	Ultrafine Blade Surgical S/S Detachable

#### Miscellaneous Accessories

CLP-64710	Super Professional Charger
CLP-64715	Super Professional Battery Pack

### Battery Operated Trimmer

Easy to use anywhere. Includes #40 stainless steel blade, tube of oil, batteries and blade brush.



Cordless

MODEL	DESCRIPTION
CLP-22965	Battery Operated Trimmer

#### Replacement Blades

CLP-22880B	#40 S/S Replacement Blade
------------	---------------------------

### Rechargeable Trimmer

Quiet, heavy duty, motor-driven rechargeable trimmer equipped with super fine tooth blades for close trimming.

- ▶ Ni-MH battery for superior performance and less memory effect
- ▶ Stainless-steel blades will not rust



Cordless

MODEL	DESCRIPTION
CLP-32375	Rechargeable Trimmer

#### Replacement Blades

CLP-32350B	S/S Replacement "T" Style Blade
------------	---------------------------------

### Pocket Pro Pet Trimmer

Light-duty trimmer ideal for precision trimming and great for touch-ups

- ▶ Compact size easily fits in palm of hand
- ▶ Cordless battery operated for convenient use anywhere
- ▶ High carbon precision ground steel blades stay sharper longer



MODEL	DESCRIPTION
CLP-9931	Pocket Pro Pet Trimmer

### Safe T-Light Trimmer

- ▶ Industry's first illuminating animal trimmer
- ▶ Ultra-bright white, no heat LEDs
- ▶ Dual Beam LEDs for safer, more precise trimming
- ▶ Cord/cordless trimmer can be used with or without cord attached
- ▶ Ni-MH battery for superior performance and less memory effect
- ▶ Carries enough charge for all-day average use; recharges to full power overnight
- ▶ Dual voltage charger included for worldwide use



MODEL	DESCRIPTION
CLP-24090	Safe T-Light Trimmer with #40 S/S Blade

#### Replacement Blades

CLP-22880B	#40 S/S Replacement Blade
CLP-22945B	Leaves Hair 0.1mm "T" Style Blade

### Professional Clipper

Professional clipper runs so cool, fans and air vents that can become clogged with hair are not needed

- ▶ Maintenance free - no oiling or greasing of internal parts is needed
- ▶ Includes size #40 detachable blade set
- ▶ All Model AG blade sets are made of high carbon steel, specially hardened for long cutting life
- ▶ Locking switch button will not accidentally shut off
- ▶ 2700 RPM



With Cord

MODEL	DESCRIPTION
CLP-22345	Professional Clipper

#### Replacement Blades

CLP-64084B	#40 Surgical S/S Detachable Blade
CLP-64071B	#10 Medium Cut Detachable Blade
CLP-64160B	Ultrafine Blade Surgical S/S Detachable Blade

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## Collars, Tethers and Slings



### New! Quick Connect™ Infusion System Complete Kits



Years of hands-on research experience has translated into technology that makes sense to the end-user. SAI has replaced the catheter, swivel and extension line "friction/compression" fittings with secure easy to attach luer locks. This small change is capable of reducing scheduling loads by 75% or more for infusion related procedures such as: blood draws, infusion set-up, intermittent infusions, body weights, cage changing, and general catheter maintenance. The system includes the Quick Connect™ harness, tether and swivel. All the components work together to save time, reduce costs, and improve the integrity of user's infusion and access system. All systems and components are ETO exposed.

MODEL	DESCRIPTION
QCK-23	Quick Connect Kit including 23G harness, 12" tether, and dual luer swivel
QCK-21	Quick Connect Kit including 21G harness, 12" tether, and dual luer swivel
QCK-23J	Quick Connect Kit including 23G jacket adaptor, jacket, 12" tether and dual luer swivel
QCK-21J	Quick Connect Kit including 21G jacket adaptor, jacket, 12" tether and Dual Luer Swivel

International and US patent # 7,665,424

### New! Quick Connect™ Harness and Jackets



The Quick Connect™ Harness provides the luer connection between catheter and any male luer fitting. It can be used separately for procedures such as bolus dosing, intermittent infusion, catheter maintenance and timed blood draws, when tethering is not required. Cannulated animals are free to roam between procedures, unrestrained and untethered wearing only the Quick Connect™ Harness. Catheters are protected and ready to access quickly and cleanly whenever needed. All user has to do is connect a syringe. It's that easy! Choose from two versions of harness; elastomeric and cloth to suit all researchers. Each harness has 2 different pin sizes to fit a wide range of indwelling catheters.

MODEL	DESCRIPTION
QCH-21	Quick Connect Luer Harness with 21G catheter connector
QCH-23	Quick Connect Luer Harness with 23G catheter connector
QCJA-23	Quick Connect Jacket Adaptor with 23G catheter connector
QCJA-21	Quick Connect Jacket Adaptor with 21G Catheter Connector
QJ-00	Rodent Jacket for Quick Connect Jacket Adaptor Extra Small 100-150g
QJ-02	Rodent Jacket for Quick Connect Jacket Adaptor Small 150-250g
QJ-03	Rodent Jacket for Quick Connect Jacket Adaptor Medium 250-350g
QJ-04	Rodent Jacket for Quick Connect Jacket Adaptor Large 350-500g
QJ-05	Rodent Jacket for Quick Connect Jacket Adaptor Extra Large 500+

International and US patent #7,665,424

### New! Standard Harness with Tether



For researchers that do not wish to use Quick Connect™ harness a standard harness with tether is available. Couple this with a single luer swivel for a complete, ready to use infusion system.

MODEL	DESCRIPTION
SAH-12	Standard Harness with 12" tether
SAH-14	Standard Harness with 14" tether
SAH-18	Standard Harness with 18" tether

International and US patent #7,665,424

### New! Rat Tethers

#### Quick Connect™ Male/Male Spring Tether



The Quick Connect™ Spring Tether is intergraded with a polyurethane extension line that is housed within. Tether has male luer ends that connects to Quick Connect™ Harness and Quick Connect™ Swivel. Individually packaged and ETO exposed.

MODEL	DESCRIPTION
QCT-12	Quick Connect 12" male to male spring tether
QCT-14	Quick Connect 14" male to male spring tether
QCT-18	Quick Connect 18" male to male spring tether

#### Male Spring Tether

For researchers that wish to use a standard swivel or stainless steel swivel with the Quick Connect™ harness simply use a tether extension line with intergraded male end. Individually packaged and ETO exposed.

MODEL	DESCRIPTION
M23T-12	12" Male luer spring tether with Catheter to fit 23G swivel
M23T-14	14" Male luer spring tether with Catheter to fit 23G swivel
M23T-18	18" Male luer spring tether with Catheter to fit 23G swivel
M22T-12	12" Male luer spring tether with Catheter to fit 22G swivel
M22T-14	14" Male luer spring tether with Catheter to fit 22G swivel
M22T-18	18" Male luer spring tether with Catheter to fit 22G swivel
M25T-12	12" Male luer spring tether with Catheter to fit 25G swivel
M25T-14	14" Male luer spring tether with Catheter to fit 25G swivel
M25T-18	18" Male luer spring tether with Catheter to fit 25G swivel

#### Spring Tether

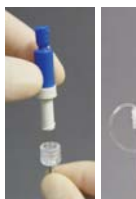
Stainless steel spring tethers for single luer or standard swivel applications.



MODEL	DESCRIPTION
QT-12	12" Spring Tether
QT-14	14" Spring Tether
QT-18	18" Spring Tether

### New! Luer Swivels

#### Quick Connect™ Swivels



There is no need to match tubing diameters with swivels any longer. A luer lock on both outlets of dual-luered Quick Connect™ swivel eliminates these complications for good. Generally used with the Quick Connect™ tether the Quick Connect™ swivel is also available with a luer only on one outlet. Use the Quick Connect™ fittings only when needed.

MODEL	DESCRIPTION
QCS-D	Quick Connect Swivel Dual Luered
QCS-S	Quick Connect Swivel Single Luer - for use with standard harness with tether block



## Collars, Tethers and Slings

### **New!** Rodent Sling and Restraint Cover

Slings can be used to securely restrain rodents during many procedures. Choice of restraint in many sizes and range of adjustment make rodent sling a valuable asset to any laboratory setting.

Other small animal species may also be restrained using same frame with suits and slings available for mice and guinea pigs.

**Frame:** Polypropylene base with supports made from stainless steel, one inch thick base material provides a robust support that does not move. Stainless supports and connectors held with convenient thumbs screws allow for height adjustments. Frame is easily cleaned and dismantles when not in use.

**Restraints:** Full body restraint is provided with choice of either sling suit or sling cover. Both restrainers allow for access to all limbs, head and tail. Velcro fasteners allow for quick and secure restraint and adjustable fit for individual animals. Sling suits are sold in five sizes according to weight range of animals. Rodent Sling Cover is available in single size for rats up to 500g. Custom sizes available on request.



MODEL	DESCRIPTION
RF S1	Rodent Sling - frame and cover
RF C01	Rodent Sling Cover only
RS FC1	Rat Sling Suit Small, 150-200g
RS FC2	Rat Sling Suit Medium, 250-350g
RS FC3	Rat Sling Suit Large, 350-500g
RS FC4	Rat Sling Suit X-Large, 500g+

### Rodent Jackets



Manufactured from breathable, latex-free power net mesh in a saddle-style format. Designed for use with rodent tethers and available in a range of sizes to ensure a secure yet comfortable fit.

MODEL	DESCRIPTION
MJ-00	Mouse
RJ-S	Rat 150-250g
RJ-M	Rat 250-350g
RJ-L	Rat 350-500g

### Elizabethan Collars

Designed to prevent animals from grooming and to protect surgical or treatment sites.

All collars are manufactured from a low-density polyethylene, for smaller animals a lightweight material is used.

Collars close with Velcro fasteners providing adjustable and secure fit for individual animals. Neck openings are bound with cotton jersey for comfort and light padding.



MODEL	DESCRIPTION
EC-M1	Elizabethan Collar for Mice 2.75"
EC-R1	Elizabethan Collar for Rats up to 450g - 4.625"
EC-R2	Elizabethan Collar for Rats 450g+ - 5.125"

### Swivel

Rodent swivels are made from durable plastic and are fitted with a 20g or 22g needle. Designed for long-life and repeated usage. Sterile packaged.

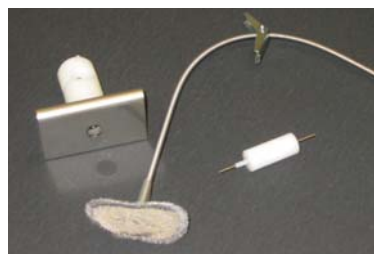
MODEL	DESCRIPTION
RS-20G	Gas Sterilized 20g
RS-22G	Gas Sterilized 22g

### Swivel Mount

Rodent swivel mount secures to the outside of the cage. Comprised of a retainer made of durable plastic with a stainless steel clip.

MODEL	DESCRIPTION
RSM	Rodent Swivel Mount

### Tethers



Constructed from lightweight stainless steel spring-coil, rodent tethers come complete with a crimped end for direct attachment to the rodent swivel (removing the need for potentially troublesome connection hardware). Jacket anchors

comes ready sewn with silver woven fabric for added comfort and resistance to opportunistic infection. Rodent tethers are designed to protect the exteriorized catheter and can be used with rodent jackets.

MODEL	DESCRIPTION
RT-12	Tether 12" sewn
RT-18	Tether 18" sewn





## AutoMate In Vivo Manual Gravity Perfusion System

*Take the guesswork out of your new animal fixation system*

Providing an option for scientists who would rather do science than design a system and source parts. Let AutoMate take the guesswork out of your new animal fixation system. Steady gravity-fed delivery of buffer and fixative, results in complete perfusion. Easy to set up, use and clean. Complete system with everything down to the needles. Fits in standard hoods at a fraction of the cost of a peristaltic pump and more reliable. One or two users can perfuse two mice simultaneously with the Double In Vivo system.



- ▶ Four reservoirs and two stopcocks are mounted for two independent wash buffer and fixative deliveries on the same ringstands
- ▶ 2-way manual stopcock makes for easy one-handed operation to switch solutions
- ▶ Consistent results - steady gravity-fed delivery of buffer and fixative results in complete perfusion
- ▶ Easy to set up, use and clean - complete system with everything down to the needles. Fits in standard hoods
- ▶ Fraction of the cost of a peristaltic pump and more reliable

MODEL	DESCRIPTION
IV-140	InVivo Perfusion System 140ml - Mouse
IV-800	InVivo Perfusion System 800ml - Rat
IV-4140	Double InVivo Perfusion System 4x 140ml - Double Mouse

## Osmotic Pumps



### ALZET® Osmotic Pumps



ALZET pumps are miniature delivery systems designed to provide constant, accurate administration of test agents. These self-powered pumps offer a convenient and efficient method for long-term dosing of mice and rats. Pumps are sold empty, and are easily filled with your test agent via syringe. Self-powered pumps are then implanted either subcutaneously or intraperitoneally. Eleven pump models offer a range of release rates and durations to meet your specific research needs. Continuous delivery of up to 4 weeks is feasible with a single pump, and even longer durations can be achieved through serial implantation of pumps.

*Pumps sold in multiples of 10. Each package comes complete with one filling tube, 10 flow moderators and detailed instructions.*

MODEL	DESCRIPTION
AP-1003D	1µL/hr, 3 days, 100µL
AP-1004	0.11µL/hr, 28 days, 100µL
AP-1007D	0.5µL/hr, 7 days, 100µL
AP-1002	0.25µL/hr, 14 days, 100µL
AP-2001D	8µL/hr, 1 day, 200µL
AP-2001	1µL/hr, 7 days, 200µL
AP-2002	0.5µL/hr, 14 days, 200µL
AP-2004	0.25µL/hr, 28 days, 200µL
AP-2006	0.15µL/hr, 42 days, 200µL
AP-2ML1	10µL/hr, 7 days, 2ml
AP-2ML2	5µL/hr, 14 days, 2ml
AP-2ML4	2.5µL/hr, 28 days, 2ml

### Filling Tubes

*Filling Tubes supplied in multiples of 10.*

MODEL	DESCRIPTION
A-FT100	Filling tube for 100 microliter pumps
A-FT200	Filling tube for 200 microliter pumps
A-FT2	Filling tube for 2 milliliter pumps

For pricing visit [braintreesci.com](http://braintreesci.com)

### Brain Infusion Kits

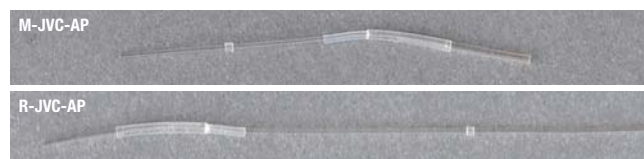
Many agents do not cross the blood-brain barrier sufficiently to evaluate their effects on the brain without administration directly into brain. Often local infusion directly into brain is only way to generate reliable data. For use with ALZET pumps for targeted delivery to the central nervous system.

- ▶ Infusion into cerebral ventricles exposes a wide variety of brain regions to infusate via cerebrospinal fluid which bathes brain
- ▶ Direct microperfusion of discrete brain structures results in localized distribution of infusate in target tissue

Includes materials for 10 brain infusions: 10 brain infusion cannulae, 10 vinyl catheter tubes, 40 depth-adjustment spacers, and instruction sheet.

MODEL	DESCRIPTION
BIF KIT1	28g, 3-5mm L
BIF KIT2	28g, 3-mm L, low profile, wide pedestal
BIF KIT3	30g, 1-3 mm L, low profile, wide pedestal

### New! Intravenous Osmotic Pump Catheter



Braintree Scientific's Micro-Renathane® based catheter for the continuous, intravenous (via the jugular vein) administration of drug solutions delivered with the ALZET® Osmotic Pump. Catheter can be modified for infusion via other blood vessels (please inquire).

*Supplied non-sterile*

MODEL	DESCRIPTION
R-JVC-AP	Rat Intravenous Osmotic Pump Catheter
M-JVC-AP	Mouse Intravenous Osmotic Pump Catheter





## Peristaltic Pumps

### BS-900 Programmable Peristaltic Pump



Have a need to accurately fill multiple bottles, vials or other containers with a liquid? The learn and repeat mode of the BS-900 Peristaltic Pump makes even the smallest of businesses highly productive right from day one.

BS-900 is equipped to be used in many settings from small business to large

factory floor. Pump can be integrated into existing production lines or simply stand alone.

BS-900 comes fully programmable and can be operated manually or with a PC through a RS-232 communication port at no extra cost.

Flow rates vary from a minimum of 0.5ml/hr to a maximum of 1250ml/min. The pump's specialty is its small scale production dispensing. It will fill numerous bottles, vials, etc. with fluids of all types.

Equipped for mass production dispensing at a price affordable for small business, this pump is a great deal no matter your purchasing power.

Easy-to-use keypad interface, space saving chassis: Foot print size of only 7.75" x 7" - won't take up unnecessary space on laboratory or production bench.

- ▶ Dispense and withdrawal pumping
- ▶ Dispense and withdrawal volumes separately accumulated
- ▶ Programmable dispense volumes
- ▶ Non-volatile memory of all operating parameters and pumping program
- ▶ Programmable phases allow complex pumping applications and interaction with external devices. RS-232 bi-directional control
- ▶ Built-in pump network driver. Pump network supports up to 100 pumps and other devices
- ▶ Two modes of RS-232 control: Basic and Safe. Safe mode provides communication error detection, loss of communication detection, and automatic transmitting of alarm conditions
- ▶ TTL I/O with software filtered control inputs to eliminate glitches and ringing on control inputs. Configurable TTL operational trigger
- ▶ Power Failure Mode: Restarts pumping program after a power interruption
- ▶ Audible alarm

MODEL	DESCRIPTION
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BS-900	Programmable Peristaltic Pump
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## Syringe Pumps

### BS-8000 and BS-9000 Programmable Syringe Pumps

*Braintree Scientific has low cost syringe pumps in stock for use in biomedical research laboratories!*



**UL Listed**  
CE APPROVED

#### Built for Automation

- ▶ Operates stand-alone or from a computer
- ▶ Infusion and withdrawal. Set a single pumping rate, set a dispensing volume, or program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- ▶ Create expandable and reconfigurable multi-syringe systems by attaching pumps to each other

#### General Features:

- ▶ Infuses and withdraws
- ▶ Accepts small syringes or large syringes, up to 60cc
- ▶ Dispense continuously at a fixed pumping rate as low as 6µL/hr or as high as 1200ml/hr
- ▶ Change pumping rate and direction while pumping
- ▶ Selectable rate units: µL/hr, µL/mn, ml/hr, ml/mn
- ▶ Dispense a specified volume
- ▶ Dispense according to a pumping program to:
  - ▶ Pre-program dispense volumes. Each volume can be different
  - ▶ Automatically change pumping rates or pumping direction
  - ▶ Ramp up or down the pumping rate
  - ▶ Timed delays between dispensers

- ▶ Automatically pause program and wait for user to continue the dispense
- ▶ Synchronize dispenses with other equipment or pumps to change pumping rates in reaction to a sensor or signals from other pumps
- ▶ Send logic signals to other equipment. Change pumping rates in reaction to a sensor
- ▶ Program audible alarm to beep at any time to alert operator
- ▶ Enter pumping program from keypad or download from a computer
- ▶ Operates stand-alone, from RS-232 computer port or TTL logic interface
- ▶ Total volume pumped separately accumulated for infusion and withdrawal

#### Programming Features:

- ▶ 41 programmable phases
- ▶ Set event interrupts from external signals to cause automatic jumps to another part of the program
- ▶ Conditional jumps based on external inputs

#### Nested Loops:

- ▶ Repeat a section of the program continuously or a set number of times

#### Program Editing Functions:

- ▶ Insert and delete program phases
- ▶ Simplifies program development and updating
- ▶ Allows quick removal or addition of program phases
- ▶ Enter programs from keypad or computer
- ▶ Download or upload pumping programs from or to a computer. Store dispensing programs in a file on computer, then download to one or more pumps. Specify in file to send a different pumping program of each pump in pump network
- ▶ Automatically change pumping rates
- ▶ Insert timed delays between dispenses

Multi-syringe pump has all programming features of the single syringe pump with either 6 or 8 syringes.

MODEL	DESCRIPTION
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BS-8000	Holds 1 Syringe up to 60cc
BS-9000-2	Holds 2 Syringes up to 60cc
BS-9000-6	Holds 6 Syringes up to 50cc
BS-9000-8	Holds 8 Syringes up to 10cc
BS-9000-12	Holds 12 Syringes up to 3/5cc





## BS-500 OEM Application Syringe Pump

*Specifically built for automation, this OEM pump operates from a computer*

- ▶ Does not have a built-in user interface
- ▶ Chassis mountable:  
9.5"L x 4.25"W x 4.125"H  
(23.5 x 10.8 x 10.5cm)
- ▶ Operates from a 12V DC power source
- ▶ Holds one syringe up to 60cc
- ▶ Infusion rates from 0.73 $\mu$ L/hr (1cc syringe) to 2100ml/hr (60cc syringe)
- ▶ Includes all advanced functions and programming features of BS-8000 family
- ▶ Download free pump terminal emulator
- ▶ Custom modifications to the mechanics and firmware are available
- ▶ Computer controllable: networkable up to 100 pumps



Stand-alone operation: pre-program the pump with a dispensing program, then operate the pump from an attached foot switch, button, or I/O controller. Add the OEM Starter Kit to run as a fully functional, stand-alone pump. Open chassis design easily mounts into your system.

Features include infuse and withdraw, holds syringes 60 cc and below. Set a single pumping rate and/or dispensing volume. Program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer. Network, control, and monitor up to 100 pumps from one computer. Dispensing accuracy of  $\pm 1\%$ . Motor stall detection available in the BS-501 model. Typically used in high pressure applications where there is a risk of exceeding the maximum force specified.

### OEM Starter Kit

Allows user to interactively communicate with the pump from a computer.

### Foot Switch

Allows user to start, stop, or trigger the next phase on syringe pump. Attach to a BS-500 to allow stand-alone operation. Utilizes TTL logic port on syringe pump.

*Higher flow rates available.*



MODEL	DESCRIPTION
BS-500	OEM Syringe Pump
BS-501	OEM Syringe Pump with Stahl Detection Includes an optical encoder that will detect and stop the motor during a Stahl
OEM-Starter	OEM Starter Kit Includes power supply, pump-to-PC network cable and user manual
ADPT-2	Foot Switch



Shop online at [www.braintreesci.com](http://www.braintreesci.com)

## BS-300 "Just Infusion"™ Syringe Pump

*Just the features that you want, and none that you don't want to pay for*



- ▶ Holds small or big syringes up to 60ml
- ▶ Pump continuously until user stops pump
- ▶ Infusion rate can be changed while pumping
- ▶ Remembers previous settings on power up
- ▶ Power failure mode allows pump to continue pumping after a reset
- ▶ Syringe purge mode
- ▶ Displays total volume dispensed in ml or  $\mu$ L units
- ▶ Maximum pumping rate of 1500ml/hr with a 60ml syringe
- ▶ Precise reproducible flow rates
- ▶ Selectable infusion rate units: ml/hr,  $\mu$ L/hr, ml/min,  $\mu$ L/min
- ▶ **"Infuses only!"**
- ▶ Just the features that you want to pay for

MODEL	DESCRIPTION
BS-300	"Just Infusion" Syringe Pump™

## High/Low Speed Precision Microliter Syringe Pump

- ▶ Uses high quality Hamilton Micro-liter™ glass syringes to ensure precise, accurate delivery
- ▶ Supports three syringe sizes: 10 $\mu$ L, 100 $\mu$ L, and 500 $\mu$ L
- ▶ Wide range of injection rates are possible
- ▶ Unprecedented injection speeds are possible. For example, using a 500  $\mu$ L syringe, an injection volume of 100  $\mu$ L can be delivered in under 100 ms!
- ▶ Able to inject the entire syringe volume during a single injection
- ▶ USB operation facilitates use; no extra controllers are required



The classic high speed Microliter Syringe Pump designed to meet the need in laboratories for rapid infusion of addictive compounds, especially nicotine.

### Typical Maximum Injection Speeds

SYRINGE SIZE ( $\mu$ L )	MAX RATE AT 10% SYRINGE CAPACITY ( $\mu$ L/SEC )	MAX RATE AT FULL SYRINGE CAPACITY ( $\mu$ L/SEC )
10	19 (inj. Volume 1 $\mu$ L)	32 (inj. Volume 10 $\mu$ L)
100	190 (inj. Volume 10 $\mu$ L)	20 (inj. Volume 100 $\mu$ L)
500	850 (inj. Volume 50 $\mu$ L)	1320 (inj. Volume 500 $\mu$ L)

Maximum and minimum injection rates are based on a saline infusion. Performance may vary depending upon viscosity of fluid. Injection rates shown represent the maximum rates achievable when either 10% of syringe capacity is injected or when full syringe capacity is injected.

MODEL	DESCRIPTION
BSP-104A	High/Low Speed Precision Microliter Syringe Pump



## Syringe Pumps

### New! Programmable Microfluidics Syringe Pump



- ▶ Smoothest microfluidic syringe pump on the market. Holds 1 syringe up to 60ml
- ▶ Advance per step: 4.252232 nanometers
- ▶ Infusion rates from 0.008nl/hr (0.5ml syringe) to 2545µl/min (140ml syringe)
- ▶ Available in double syringe (BS-4002X) version
- ▶ Easy-to-use keypad interface
- ▶ Space saving chassis: foot print size of only 5.75" x 8.75" won't take up unnecessary space on laboratory or production bench
- ▶ Includes all advanced functions and programming features of BS-8000 family
- ▶ Includes X upgrade smooth linear/gradient increasing and decreasing pumping feature

MODEL	DESCRIPTION
BS-8002X	Single Syringe Pump
BS-8004X	Dual Syringe Pump

### Syringe Heater

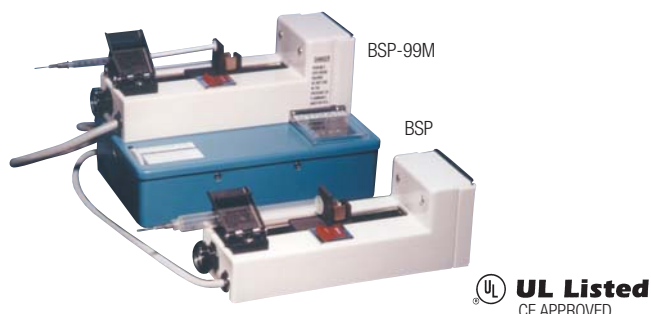


Heating device for syringes that require temperature-controlled dispensing. Heats syringe to over 100°C. Temperature sensor in heating pad. Digitally set heater setpoint, setpoint is retained in memory. Controller will heat syringe and hold set temperature using an on/off or PID control

algorithm. Multiple syringe heater pads can be attached to the control unit. Pump sold separately.

MODEL	DESCRIPTION
BS-SYRH	Syringe Heater Kit includes Control Unit, power cable and Primary Syringe Heater pad
BS-SYRH2	Syringe Heating Pad2 Kit for attaching a second heating pad to syringe heater kit. Temperature sensed in primary heating pad only
BS-SYRH3	Syringe Heating Pad3+ for adding third, up to sixteen, heating pads. Temperature sensed in primary heating pad only

### Model BSP-99M Multi-Speed



Multi-speed pumps infuse for times ranging from 20 minutes to 2 weeks!

Model BSP-99M syringe pump has 99 speeds and is designed for use with readily available glass and plastic syringes (up to 50ml).

- ▶ Built in flow chart
- ▶ 99 equally spaced infusion speeds
- ▶ Calibrated sheet providing flow rates for the major brand syringes
- ▶ Automatic shut-off
- ▶ Sound alarm to signal an empty syringe

MODEL	DESCRIPTION
BSP-99M	(0.145 to 140ml/hr)

*Special order interchangeable motors to achieve different rates – \$75 per motor. Call for list.*

### Micro-Syringe Adapter

Micro-Syringe Adapter is designed to be used in BSP syringe pumps when using syringes of 5ml or smaller. It is possible to insert two micro-syringes into the adapter.

**Note: Rates specified obtained with a 50ml syringe**

MODEL	DESCRIPTION
BSP-ADPT	Micro-Syringe Adapter

### Model BSP Single-Speed

Single speed pumps provide from 40 minutes to 3 days of continuous infusion with flow rate dependent on syringe size.

Model BSP single speed syringe pump is specifically designed to infuse fluids at an exact and reproducible flow rate from either glass or plastic syringes. Model BSP syringe pumps are equipped with:

- ▶ Automatic shut-off switch (disconnects power at end of syringe)
- ▶ Indicator on light

A calibration index is provided for infusion rates with different size syringes.

MODEL	DESCRIPTION
BSP-1	0.01ml/min; duration = 3 days +
BSP-2	0.12ml/min; duration = 6.9 hrs. +
BSP-3	1.21ml/min; duration = 41 minutes +
BSP-4	0.04ml/min; duration = 20 hrs. +
BSP-5	6ml/min; duration = 8 minutes +
BSP-6	36.2ml/min; duration = 1 minutes +



# Blood Pressure Measurement



## New! Mouse Rat Tail Cuff Blood Pressure System

Easy as 1-2-3 – Configure, one button calibration, test!



IITC has designed a tail cuff blood pressure system in one compact unit. Warming chamber, tail cuff, and restrainer completely controlled by the built in touch screen interface. Requires no other external devices to deliver NIBP data at the touch of a button. IITC tail cuff blood pressure system is unparalleled in ease of use: place animal into supplied restrainer, attach tail cuff, set the desired temperature of the warming chamber, select number of test cycles, press auto calibrate and run test. Blood pressure systems allow user to measure from 1 to 200 animals at once or independently. No other system on the market has this capability. Settings allow user to control temperature, test cycle, cuff inflation and deflation rates, cuff calibration and various test parameters with simple touch screen interface. Data is copied to a USB flash drive for analysis. System detects systolic, diastolic, mean, heart rate and temperature. System display actual real time pulse recordings and all the numerical values.

Warming chamber is an independent environment controlled through touch screen interface. Heating plates and room temperature are not a factor. Warm air is delivered to the housing by a small fan which generates a calming "white noise" resulting in consistent and accurate readings.

All units can be daisy chained up to 200 channels and controlled independently. IITC Tail cuffs are the only tail cuffs that require an average temperature of 32°C for rats and 34°C for mice. Cuff design consists of a photoelectric cell which is still the most accurate method for obtaining tail cuff blood pressure pulses. Other systems may require extreme high temperatures to obtain pulse readings. This is a known danger since these extreme temperatures can cause the obvious – thermo stress and/or death of test subject.



System consists of:

- ▶ Amplifier
- ▶ Cuff inflation
- ▶ Warming chamber
- ▶ Touch screen control of all parameters
- ▶ Auto calibration, inflation/deflation rates, tests per animal
- ▶ Automatic real time inflation/deflation screen
- ▶ True pulse recordings shown, not x y access
- ▶ Tail cuff
- ▶ Restrainers
- ▶ Spare parts package of all consumable items

Mouse and Rat Blood Pressure System complete for 1 animal with data acquisition software, automatic detection, data collection, complete touch-screen control.

MODEL	DESCRIPTION	SENSOR SIZE
MRBP-M01-1/4-84	Adult Mouse Restrainer and Neonate Rats	20-80g, 0.25"
MRBP-M01-1/4-84XL	Mouse Restrainer, 25-70g	20-80g, 0.25"
MRBP-R01-3/8-83	Rat Restrainer, 70-170g	70-160g, 0.375"
MRBP-R01-7/16-81	Rat Restrainer, 180-270g	150-380g, 0.437"
MRBP-R01-7/16-82	Rat Restrainer, 250-400g	150-380g, 0.437"
MRBP-R01-3/4-82	Rat Restrainer, 400-600g	500-650g, 0.75"
MRBP-R01-3/4-79	Rat Restrainer, 600-800g	500-650g, 0.75"
MRBP-R01-1-79	Rat Restrainer, 600-800g	650-800g, 1"
MRBP-R01-1-78	Rat Restrainer, 750-1000g	650-800g, 1"

Note: The 600-800g restrainer can work in conjunction with either the 0.75" or 1" sensor, this depends on the thickness of the tail.

MRI Option: Add \$100 to the cost of the system and "MRI" at the end of the model number.



Shop online at [www.braintreesci.com](http://www.braintreesci.com)



## Physiology Equipment

### MouseOx® Small Animal Pulse Oximeter

- ▶ Arterial oxygen saturation
- ▶ Pulse rate
- ▶ Pulse distention
- ▶ Breath rate

Introducing the world's first and only pulse oximeter for mice and rats! Multiple cardiopulmonary measurements from one non-invasive sensor clip.



MODEL	DESCRIPTION
SLS-000765	MouseOx with Analog Pulse Output, select two sensors
SLS-000767	MouseOx, select two sensors

### STARR-Link™ Analog Output Module

Output beat-by-beat MouseOx® data in analog form to another recording system.

Starr-Link™ analog output module provides real-time analog voltage outputs of MouseOx® data. STARR-Link transmits all MouseOx® data at 15 Hz, using a 0-5 VDC scale. Connects easily to computer with a USB cable. It has no external power supply and is automatically recognized by MouseOx® software. No additional software is needed.



MODEL	DESCRIPTION
SLS-000003	STARR-Link

### MouseOx® Non-invasive Sensors

- ▶ Easily applied by one person
- ▶ Monitor conscious, unrestrained or anesthetized animals
- ▶ Monitor hypothermic and hypovolemic animals



Five sensors per pack

MODEL	DESCRIPTION
SLS-000749	XS CollarClip™ Sensor: conscious mice and young rats
SLS-000750	S CollarClip Sensor: conscious mice and young rats
SLS-000751	M CollarClip Sensor: conscious mice and young rats
SLS-000752	XS ThroatClip Sensor: anesthetized mice and young rats
SLS-000753	S ThroatClip Sensor: anesthetized mice and young rats
SLS-000754	M ThroatClip Sensor: anesthetized mice and young rats
SLS-000755	Mouse Thigh Sensor: anesthetized mice and young rats
SLS-000756	L CollarClip Sensor: conscious rats
SLS-000757	XL CollarClip Sensor: conscious rats
SLS-000758	2XL CollarClip Sensor: conscious rats
SLS-000759	L ThroatClip Sensor: anesthetized rats
SLS-000760	XL ThroatClip Sensor: anesthetized rats
SLS-000761	2XL ThroatClip Sensor: anesthetized rats
SLS-000762	Rat Foot Sensor: anesthetized rats

MouseOx® Plus System available, call for information

### OxyDial™ 0%-100% Blender HypoxyDial™ 0%-21% Blender

Allows user to quickly and easily dial oxygen fraction (FIO<sub>2</sub>) and O<sub>2</sub>/N<sub>2</sub> gas mixtures. Using universal fittings, the system connects to centralized supplies bottles or wall outlets of oxygen and nitrogen. User simply turns a dial to set oxygen percentage, and can adjust outlet flow rate to obtain a constant stream of gas at desired FIO<sub>2</sub> and flow rate. System is purely mechanical and uses no electrical power. Includes all hoses and fittings to connect from bottled gas source to blender.



MODEL	DESCRIPTION
SLS-000500	OxyDial™ (with pressure hoses and regulators)
SLS-000503	Hypoxy Dial™ (with pressure hoses and regulators)

### Pulsar™ MRI Compatible Sensor

Pulsar™ MRI Sensor plugs directly into MouseOx® and functions without any special equipment or software. Pulsar™ MRI Sensor can be used in any small bore MRI environment. The sensor itself is 20" long enabling the MouseOx® and computer can be located a safe distance from the MRI device. End of sensor contains a 5' fiber optic portion that can be located inside any small bore MRI machine and can be used during imaging without affecting image quality. The sensor clips to the animal's foot or thigh.



MODEL	DESCRIPTION
SLS-001300	Pulsar Small Bore MRI Compatible Sensor
SLS-001304	Replacement MRI Thigh Sensor
SLS-001305	Replacement MRI Foot Sensor

### Automated Milker for Rat and Mouse

*Ideal for the analysis of breast milk composition*



Automated milker provides researchers the ability to collect rat/mouse milk directly from the teat. Collects milk from lactating mothers by alternating negative and atmospheric pressures through two solenoid valves and a vacuum pump attached to a microcomputer.

Environmental pollutants, in particular carcinogenic substances and endocrine disrupting chemicals, are a worldwide concern. The influence that these substances have on babies and their development, through breast or cow milk, is of great concern. The ability to gather milk from rats and mice, widely used experimental animals, will aid in advancement of research in this area.

MODEL	DESCRIPTION
59150	Automated Milker, Rat and Mice





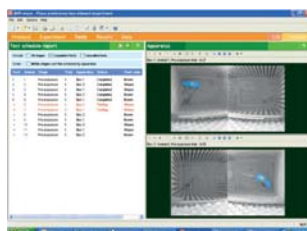
## ANY-maze Behavioral Tracking Software

*Impressively flexible, incredibly simple, intensely powerful*

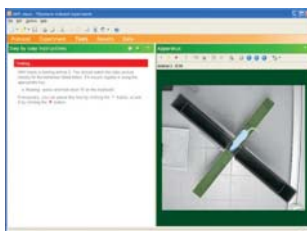
- ▶ Track literally any animal anywhere
- ▶ Intuitive, friendly design
- ▶ Tracks up to 16 pieces of apparatus simultaneously
- ▶ Includes more than 100 standard measures
- ▶ Performs full statistical analysis of results immediately upon completion of your experiment
- ▶ Comprehensive technical support
- ▶ Incredibly low price



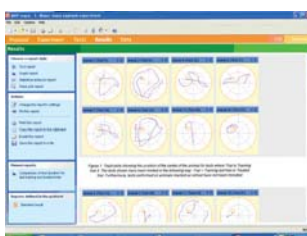
ANY-maze can automate testing in a wide variety of behavioral apparatuses.



ANY-maze can perform tests in up to 16 pieces of apparatus simultaneously.



ANY-maze has comprehensive reporting and analysis features including more than 30 built-in statistical tests.



As the name implies ANY-maze can be used to track literally any animal anywhere. Using just a conventional desktop or notebook computer, and an analog, USB or FireWire camera, user can be up and running. User can also use ANY-maze to automate complex systems with multiple cameras and apparatuses.

MODEL	DESCRIPTION
60000	ANY-maze Software
60600	ANY-maze System with camera and accessories bundle Desktop
60601	ANY-maze System with camera and accessories bundle Laptop

## Water Maze



Water Maze is a behavioral procedure designed to test spatial memory.

### Maze advantages:

- ▶ Elimination of local cues such as trace scents
- ▶ No fixed escape formula

MODEL	DESCRIPTION
60135	Mouse Water Maze
60136	Mouse/Rat Water Maze
60235	Rat Water Maze

## "Forced Swim" Test

"Forced Swim" Test (also known as the behavioral despair test) is the most commonly used test for assessment of depression in animal models. The test is commonly used to measure the effect of antidepressant drugs on behavior.



MODEL	DESCRIPTION
60160	Forced Swim Test

## Elevated Plus Maze



Elevated Plus-Maze is used to assess anxiety-like behavior in laboratory animals. The maze exploits the conflict between the innate fear that rodents have of open areas, versus their desire to explore novel environments.

MODEL	DESCRIPTION
60140	Mouse Plus Maze
60240	Rat Plus Maze

Many more mazes available, or visit [braintreesci.com](http://braintreesci.com)



Shop online at [www.braintreesci.com](http://www.braintreesci.com)

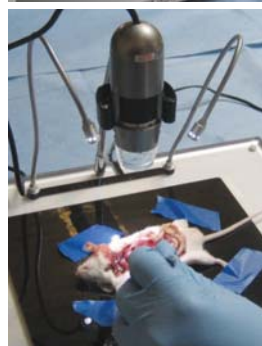




# Microscopes and Loupes

## Portable Digital Microscope/Camera

*Equip your surgery platform with a portable digital microscope/camera*



Ideal for small rodent surgery, demonstrations, dissections and much more!

Features a 2.0 USB connection eliminating the need for interface cards or expensive software. Easy and convenient to load and use DinoCapture application software and user's manual are included for collection and processing of photos.

- ▶ Resolution: 640 x 480 pixels
- ▶ Magnification: 10~200x continuous
- ▶ Sensor: 1/4" Color CMOS
- ▶ Video frame rate: up to 30 frame-per second
- ▶ Illumination: built-in 8 white LEDs
- ▶ CD Content: DinoCapture application software, users manual
- ▶ Automatic or manual color balance and brightness control

### System Requirements:

- ▶ Compatible Windows 2000/XP, Vista and most MAC OS
- ▶ Intel Pentium III 1 GHz processor or faster
- ▶ 256 MB RAM
- ▶ CD-ROM drive
- ▶ 16-bit color display monitor or higher
- ▶ Available hi-speed USB 2.0 port

MODEL	DESCRIPTION
PDMC	Digital Microscope/Camera includes mounting bracket (DMCB), DinoCapture software, USB 2.0 extension
DMCB	Bracket for Microscope/Camera (PDMC)
TSPCK	Thermo Surgery Platform/Camera Kit includes thermo surgery platform with gel-pads, digital microscope/camera, mounting bracket (DMCB), DinoCapture software, USB 2.0 extension, gel pad reactivation unit
SSPCK	Standard Surgery Platform/Camera Kit includes standard surgery platform, digital microscope/camera, mounting bracket (DMCB), DinoCapture software, USB 2.0 extension

## Magnifying Loupes

### Features:

- ▶ Set and Forget™ optics
- ▶ Dual hinge design
- ▶ Locking interpupillary knob
- ▶ Double locking convergence angle

### Benefits:

- ▶ Optics are quickly and easily locked into place
- ▶ Allows for easy flip up of optics
- ▶ Allows for secure adjustments of your settings
- ▶ Provides stable alignment of optics



### Choosing the right loupe: follow these two steps for a perfect match:

**Step 1:** Choose magnification. Start with the lowest power you need. Most professionals begin using loupes with a magnification power of 2.5X. Remember, as the magnification increases, the field of view, focal range and light transmission decreases.

**Step 2:** Choose working distance. All loupes are pre-set to focus at a certain distance and objects will remain in focus within a range of several inches. Loupes are available in 4 working distances: Short (10-13"), regular (12-16"), long (14-18") and extra long (16-20").

**The 250 Series (2.5x)** is the ideal general purpose optic. The 250 series optic will provide a magnified view of approximately 2.5 times the object size. Most first time loupe users choose this magnification.

**The 300 Series (3x)** is an ideal optic for those who have worked with a 2.5x magnification power optic and want an increase in power. The 300 series optic provides a view of the entire area of focus and has an excellent depth of focus.

**The 350 Series (3.5x)** is the highest magnification optic available in a compound lens design. The 350 series optic is an excellent choice for dentists and surgeons requiring high magnification in a lightweight loupe. Kit contains: head strap, screwdriver, storage case, cleaning cloth, solution, magnification loupe and frame.

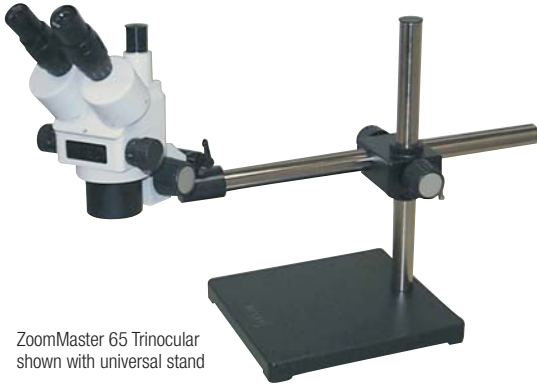
MODEL	MAGNIFICATION	WORKING DISTANCE	FIELD OF VIEW	COLOR
LP-5000	2.5x	10"-13" (S)	3.5" (S)	Red
LP-5001	2.5x	12"-16" (R)	3.8" (R)	Red
LP-5002	2.5x	14"-18" (L)	4.3" (L)	Red
LP-5003	2.5x	16"-20" (XL)	4.6" (XL)	Red
LP-5011	2.5x	10"-13" (S)	3.5" (S)	Black
LP-5012	2.5x	12"-16" (R)	3.8" (R)	Black
LP-5013	2.5x	14"-18" (L)	4.3" (L)	Black
LP-5014	2.5x	16"-20" (XL)	4.6" (XL)	Black
LP-5004	3x	10"-13" (S)	2.8" (S)	Red
LP-5005	3x	13"-16" (R)	2.5" (R)	Red
LP-5006	3x	16"-21" (L)	3.5" (L)	Red
LP-5007	3x	18"-22" (XL)	4" (XL)	Red
LP-5015	3x	10"-13" (S)	2.8" (S)	Black
LP-5016	3x	13"-16" (R)	2.5" (R)	Black
LP-5017	3x	16"-21" (L)	3.5" (L)	Black
LP-5018	3x	18"-22" (XL)	4" (XL)	Black

For 3.5x visit [braintreesci.com](http://braintreesci.com)

## Microscopes and Loupes



### Stereo Zoom Microscope System



ZoomMaster 65 Trinocular  
shown with universal stand

Offering cost-effective performance, flexibility and affordability.

ZoomMaster body is available in binocular (ZBB) and trinocular (ZTB) versions with 45° inclined eye tubes and side mounted continuous zoom controls. A 0.7x to 4.5x zoom range is standard. A détente mechanism indicates magnification without interrupting observation and ensures reproducibility of magnification for measurement purposes.

Trinocular (ZTB) body is fitted with a photoport for photographic and CCTV applications. Camera adapters are available and with addition of suitable digital mount or 'C' mount adapters, all modern cameras can be fitted to the microscope.

ZoomMaster is equipped with focusing eyepiece tubes and an adjustable inter-pupillary distance of between 50mm and 75mm. Rotatable through 360°, body has a 74mm diameter compatible with major OEM configurations. 10x focusing eyepieces with eyecups are supplied as standard, providing a 10x to 40x magnification and a long working distance.

### Zoom Master 65

AUXILIARY LENS	WORKING DISTANCE	EYEPIECES 10x	EYEPIECE 15x MAGNIFICATION RANGE	EYEPIECE 20x	EYEPIECE 25x
0.5x	189mm	3.5x-22.5x	5.3x-33.8x	7x-45x	8.8x-56.3x
none	108mm	7x-45x	10.5x-67.5x	14x-90x	17.5x-112.5x
2x	34mm	14x-90x	21x-135x	28x-180x	35x-225x
		Z6BD223	Z6TD223	Z6BU49	Z6TU49
Binocular (ZBB)		•		•	
Trinocular (ZTB)			•		•
10x WF Eyepieces		•	•	•	•
Focus Block (FB100)		•	•	•	•
Pillar Stand (ZP101)					
Duplex Stand (ZD222/230V) or ZD223/115V)		•	•		
Universal Stand (ZS2049)				•	•
Dust Cover		•	•	•	•

Illumination options available online at [braitreesci.com](http://braitreesci.com)

## Microscopes Accessories



### 150W Cold Light Illuminator



150 watt fiber optic/cold light illuminator. Variable intensity control. Three models available: single light guide, bifurcated light guide or ringlight. Color temperature of 3250K.

MODEL	DESCRIPTION
CL150 0	Without Light Guide
CL150 1	With Single Light Guide
CL150 2	With Bifurcated Light Guide
CL150 3	With Ringlight

### Wide Field Eyepieces



Two required

MODEL	DESCRIPTION
ZS-WF 10	10x Single
ZS-WF 20	20x Single
ZS-WF 25	25x single



Visit our website at [www.braitreesci.com](http://www.braitreesci.com)



## Anesthesia Line

### Small Animal Anesthesia Systems that evolve with your needs

#### *Safe, easy-to-use anesthesia systems for small animals*

E-Z Anesthesia customizes systems to integrate seamlessly with your existing equipment. These systems can be customized to satisfy your current needs while providing the flexibility to expand and meet future requirements.

An innovative solution that offers the ultimate in user-friendly, simple operation with a level of precise automation that minimizes operator error. Each system incorporates a breathing valve that controls gas flow to the nosecone and protects both animals and technicians from overexposure to gas. Switching from working with mice to rats is as easy as changing a nosecone.

The E-Z system is expandable to accommodate up to four breathers. The system is adaptable to a wide range of procedures from STEREOTAXIC, MRI, X-Ray, PET, simply by interchanging a breather.

### Single Animal System



Single Animal System is designed as an economical alternative when a simple, entry-level system is sufficient.

Accommodates animals ranging in size from neonate mice to rabbits. Designed for treatment of one animal at a time. Y-splitter valve directs anesthetic output to either induction chamber or breathing circuit. Oxygen flush purges induction chamber before removing animal. Carry handle facilitates safe, easy transport of unit

#### **System includes:**

- ▶ EZ-108SA Single animal vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus plastic surgery bed
- ▶ EZ-178 mouse/rat Sure-Seal induction chamber
- ▶ EZ-258 charcoal filters (8)
- ▶ EZ-320 oxygen regulator for 'H' tanks
- ▶ Mouse/rat nosecones, nosecone plugs, 2 plastic surgery beds, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-SA800	Single Animal System

### Classic Small Animal System



#### **Classic Starter System**

Includes core EZ Anesthesia components without heating system. Heating components may be added to the system as needed.

#### **Featuring the Microflex Breather**

Low profile breather is suitable for work under microscopes and other applications where a smaller breather is required. Also available in plastic for MRI use.

#### **System includes:**

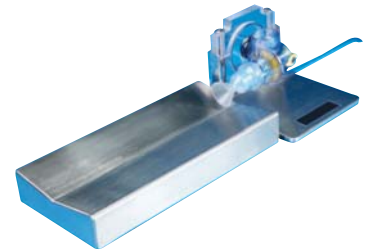
- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus plastic surgery bed
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-258 charcoal filters (8)
- ▶ O<sub>2</sub> regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat nosecones, nosecone plugs, 2 plastic surgery beds, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7000	Small Animal Anesthesia Systems

### Versaflex Small Animal System

#### **Featuring the Versaflex Breather**

Versaflex breather offers the flexibility to treat a wide range of animals - neonates up to 5 kilogram rabbits. Breather is supplied with three nosecone sizes - customized for mice, rats, rabbits and guinea pigs. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure. Includes heating elements for maintaining animal temperature during procedures.



#### **System includes:**

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-104 Versaflex non-rebreathing unit
- ▶ EZ-178 Mouse/Rat Sure-Seal induction chamber
- ▶ EZ-212 Mouse/Rat stainless steel heated surgical waterbed (10"L x 6"W x 1.5"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O<sub>2</sub> Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat and rabbit/guinea pig nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7150	Versaflex Small Animal Anesthesia Systems





## Microflex Small Animal System

### Featuring the Microflex Breather



This low profile breather is suitable for work under microscopes and other applications where a smaller breather is required. Also available in composite plastic for MRI use. Breather is supplied with two nosecone sizes - customized for mice, rats and other animals weighing up

to 500 grams. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure. Includes heating elements for maintaining animal temperature during procedures.

#### System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-103 Microflex mouse/rat non-rebreathing unit
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-211 Mouse/Rat thin-line stainless steel heated surgical waterbed (10"L x 3.5"W x 1"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O<sub>2</sub> Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7200	Microflex Small Animal Systems

## Multi-Animal System

### Featuring the Multi-Animal Breather for use with x-ray, MRI and PET imaging equipment

Breather incorporates five ports that can accommodate five mice or three rats simultaneously from a single gas line. Custom breathers can also be made to integrate with existing equipment. Breather is supplied with five mouse nosecones and three rat nosecones. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure.



#### System includes:

- ▶ EZ-150C Classic Vaporizer Unit
- ▶ EZ-109 Multi-Animal Non-Rebreathing Unit
- ▶ EZ-178 Mouse/Rat Sure-Seal Induction Chamber
- ▶ EZ-163 Induction Chamber Warmer
- ▶ EZ-200 Water Heating Circulation Pump
- ▶ EZ-258 Charcoal Filters (8)
- ▶ O<sub>2</sub> Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/Rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7350	Multi-Animal Systems

## Stereotaxic Small Animal System

### Featuring the Rat Stereotaxic Breather



Breather is specifically designed for use with rats. Integrates easily with standard stereotaxic equipment. Incorporates adjustable nose bridge, lower jaw support and ear bars. Includes heating elements for maintaining animal temperature during procedures.

#### System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-107 Rat stereotaxic non-rebreathing unit
- ▶ EZ-178 Mouse/Rat Sure-Seal induction chamber
- ▶ EZ-211 Mouse/Rat Thin-Line stainless steel heated surgical waterbed (10"L x 3.5"W x 1"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O<sub>2</sub> Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/Rat nosecones, nosecone plugs, charcoal filter stand and all connecting tubes

MODEL	DESCRIPTION
EZ-7400	Stereotaxic Small Animal Systems

## EZ-AF9000 Auto Flow System



Precise, consistent, preset flow rate from each outlet, no variables. E-Z Auto Flow System offers highly efficient, precise gas flow that is easy to use.

- ▶ Fixed flow rates are set specifically for mice and rats
- ▶ Each output is individually controlled with simple on/off switch
- ▶ Five outputs supply anesthesia to the induction chamber and up to four breathers
- ▶ Preset flow rates eliminate need for flowmeters and manual adjustments
- ▶ Protocols are easily followed without calculations
- ▶ Flow rate is not impacted by the accessories connected
- ▶ Precise, low flow gas saves money and protects personnel
- ▶ Pushbutton oxygen flush purges induction chamber before removing animals

#### System includes:

- ▶ EZ-190F Auto-flow vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus plastic surgery bed
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-258 Charcoal filters (8)
- ▶ EZ-320 Oxygen regulator for "H" tanks
- ▶ Mouse/Rat nosecones, Nosecone plugs, 2 plastic surgery beds, charcoal filter stand, and all connecting tubes.

MODEL	DESCRIPTION
EZ-AF9000	Auto Flow System



## Anesthesia Line

### EZ-R20C Oxygen Concentrator

Eliminates the need for oxygen tanks or an in-house oxygen source.

- ▶ Extracts nitrogen from room air, outputs oxygen at 90% minimum purity
- ▶ Saves money in oxygen costs
- ▶ Eliminates labor costs and inconvenience of tank changes
- ▶ Proven reliability with thousands in use around the world
- ▶ Quiet operation at 49dB sound level
- ▶ Easy portability with rollerbase design
- ▶ Maximum output flow rate of up to 8LPM and fixed pressure of 20psi
- ▶ Weight is manageable at 54 lbs
- ▶ Able to supply oxygen to multiple systems simultaneously
- ▶ Well-suited for use in barrier facilities



MODEL	DESCRIPTION
EZ-R20C	Oxygen Concentrator

### Oxygen Regulators



EZ-320



EZ-330

MODEL	DESCRIPTION
EZ-320	Oxygen Regulator with H-Cylinder fitting (preset at 50 psi)
EZ-330	Oxygen Regulator with E-Cylinder fitting (preset at 50 psi)

### Low Pressure Regulator (PSI)

Offers precise (5-30 PSI) control of CO<sub>2</sub> flow. Regulator comes with a six-foot hose and quick-disconnect fitting that attaches to the Euthanex Lid.



MODEL	DESCRIPTION
EP-1100	Low Pressure Regulator

### Wall Mount CO<sub>2</sub> Flow Meter

Offers precise liters per minute (2-16 LPM) control of CO<sub>2</sub> flow. Flow meter ensures minimum gas usage and maximum safety for technicians. Includes 6' hose and quick-disconnect fitting that attaches to Euthanex Lid.



MODEL	DESCRIPTION
EP-1310	Wall Mount CO <sub>2</sub> Flow Meter

### ReFresh™ Anesthetic Waste Gas Canister

#### Save time and money

Refresh Canisters last twice as long, capture twice the amount of Isoflurane with less waste and increased safety. With a decrease in canister changeovers there is potential for cost savings up to 40%.



MODEL	DESCRIPTION
EZ-258	ReFresh™ Gas Canister - case of 8

### F/AIR Canister



A sensible answer to anesthesia gas problems in the operating room, the F/AIR anesthesia gas filter was specifically designed to remove waste anesthesia gases from the operating room environment. Economical to use, with an average useful life of 12 to 15 hours, F/AIR is easily adaptable to anesthesia machines. F/AIR can remove no less than 50 grams of pure halogenated anesthetic gases and can then be conveniently discarded.

MODEL	DESCRIPTION
F-AIR	F/Air Canister
F-AIR-CS	F/Air Canister - case of 8
F-AIR-KIT	F/Air Kit - Includes holder, scavenger tube and one canister

### Coaxial Breathing Apparatus

Anesthetic gas enters the side port and flows to front of nose cone to be inspired by patient. Upon exhalation positive pressure lifts a precision ball valve for 1-way scavenging. A rubber balloon is attached at the opposite end acting as a diaphragm.



MODEL	DESCRIPTION
COAX	Coaxial Breathing Apparatus

### Gas Anesthetizing Box

#### For use with rodents

The 0.25" thick transparent plastic anesthetizing box allows for constant observation while anesthetizing. Helps protect against accidental overdosing.

For use with rats and mice. Easy to move machine tooled sliding top. Made of durable plastic, this box should last for years.

Not for use with liquid organic solvents.



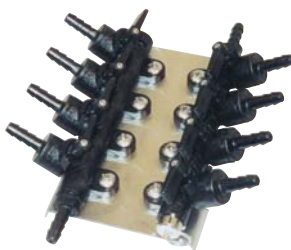
MODEL	DESCRIPTION
AB-1	Small Box 10"L x 4"W x 4"H • (25.4cm L x 10.16cm W x 10.16cm H)
AB-2	Large Box 10"L x 8"W x 8"H • (25.4cm L x 20.3cm W x 20.3cm H)
AB-4	Extra Small Box 4"L x 4"W x 4"H • (10.2cm L x 10.2cm W x 10.2cm H)

Additional sizes are available, please call for a quote



## Manifold

Manifold supports multiple procedures while utilizing only one vaporizer. While offering individual shut-offs, manifold provides intake of new gas to designated locations while opposite side provides output for used gases to a scavenger unit.



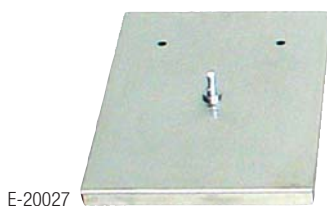
MODEL	DESCRIPTION
MAN-4	4 Station Manifold

Additional sizes are available, please call for a quote

## Euthanex Lids



E-20029



E-20027

Euthanex Lid system has become an industry standard. Simply by removing the water bottle from the wire cage cover and placing Euthanex Lid over the host cage, user is ready to perform euthanasia. Eliminates the need to transfer animals.

Lids are available in five sizes to accommodate virtually all-plastic cage sizes designed for small lab animals. Heavy-duty stainless steel lids have a stem for easy connections to the regulator hose. A foam lid gasket assures a good seal. Multiple lids may be used to treat several cages at once.

MODEL	DESCRIPTION
E-20027	Super Small Lid (13" x 9") - Stainless Steel
E-20028	Small Lid (16" x 10") - Stainless Steel
E-20030	Square Lid (13" x 13") - Stainless Steel
E-20032	Medium Lid (20.5" x 11") - Stainless Steel
E-20033	High Density Mouse Lid (13" x 17") - Stainless Steel
E-20034	Large Lid (23" x 16.5") - Stainless Steel
E-20029	Lid Storage Bracket - Wall mounted bracket holds up to four lids
EP-1130	6' Hose with quick disconnect

## Induction Chamber



Clear, durable, acrylic constructed induction chamber. Fresh anesthetic gas from vaporizer or manifold enters a barbed fitting and is directed to the bottom of chamber. Scavenged gas exits the opposite fitting to waste gas

site. Routed top ensures perfect fit. No corners facilitate easy proper cleaning. Stainless steel false floor and 10' blue tubing provided. Accepts tubing from 0.25" - 0.375" inner dimension.

MODEL	DESCRIPTION
IC6X4	Small Induction Chamber Inner Dimensions: 5.25" W x 3.5" H • Overall Dimensions: 7" W x 7" H
IC8X8	Large Induction Chamber Inner Dimensions: 7.5" W x 8" H • Overall Dimensions: 10" W x 10" H

## CO<sub>2</sub> Chamber

*The cleanest CO<sub>2</sub> induction chamber on the market!*



- For mice and rats
- Simple, quick and easy to use!
- Small foot print – 9" diameter, easy to keep on bench
- Quick connect with valve – closes when disconnected, keeps CO<sub>2</sub> in tube and chamber
- Door allows user to place animals in chamber without losing CO<sub>2</sub>. Provides for ultra quick animal induction
- 7' tube – easily connects to CO<sub>2</sub> source
- Disposable bag liner – animal feces and urine remain in bag with animal Chamber is always clean
- Delivery tube within chamber – fills chamber from bottom, decrease induction time, "more humane"
- Clear acrylic top – easy to see animals in chamber
- Solid sides – prevents viewing of animals during the process
- Includes see thru acrylic lid with door and quick connect with valve, 7' tubing, 50 disposable insert bags

MODEL	DESCRIPTION
COIC	CO <sub>2</sub> Chamber
COBL	Disposable Liner Bags (50 bags/pk)

## Anesthesia WorkStation



Compact (9" W x 9" D x 15" H), convenient system for use on animals under 7 kg (15 lb). In clinical trials the AWS is being used for long term anesthetic procedures on 150-400gm rodents. AWS has been shown to be effective with induction, stabilization, and maintenance of patients for neurophysiological testing using inhalant anesthetics for daily 8- to 12-hour procedures. Using the AWS, rats under isoflurane anesthesia have been subject to extended electrophysiological recordings of cortical responses. Throughout these procedures AWS has been shown to facilitate administration of anesthetics, holding the subject in a very smooth, controllable anesthetic plane, as well as providing precise respiratory control.

Hallowell EMC Anesthesia WorkStation is easy to use as *both* a basic respirator (irrespective of anesthetic regime) and delivery source for inhalant anesthetics. It incorporates a time-cycled volume ventilator with an adjustable pressure safety limit. The only additional component necessary for immediate utilization is a vaporizer for the agent of your choice.

Frees user from the restraints of the operating room to work on bench top when appropriate.

MODEL	DESCRIPTION
AWS	Anesthesia Workstation





## Anesthesia Line

### Vaporizers

Calibrated 0.25 to 5% using a laser refractometer for the specified anesthetic drug. Complete with safety lock to help prevent accidental turn-on of dial. Fluctuations in temperature, flow rate and duration of use is automatically compensated for during use. When used with I.P.P.V. the variation in output is negligible.

*Please specify drug type: Isoflurane, Halothane, Sevoflurane, Enflurane. Add an additional \$100 if purchasing for Sevoflurane. Drug not included.*



MODEL	DESCRIPTION
VP	Cage Mounting and Well Fill

### Single Animal Vaporizer Unit

An economical choice for single animal treatment.



MODEL	DESCRIPTION
EZ-108SA	Single Animal Vaporizer Unit

### Classic Vaporizer Unit



Unit incorporates a manual five-output manifold that includes a new flowmeter configuration that improves upon the original E-Z Anesthesia design.

MODEL	DESCRIPTION
EZ-150C	Classic Vaporizer Unit

### Auto Flow Vaporizer Unit



Featuring an automatic five-output manifold that does not require flowmeters.

MODEL	DESCRIPTION
EZ-190F	Auto Flow Vaporizer Unit

### MicroVent 1



Ventilator capable of providing ventilatory support for intubated animals.

Dual mode ventilator will operate to deliver standard intermittent positive pressure ventilation (IPPV) or it will operate to deliver high frequency oscillatory ventilation (HFOV). The entire breathing system has a volume of less than 1cc. There are just four parameters to

control, Oxygen Flow, Frequency (BPM), Amplitude (VT) and Mean Airway Pressure (MAP).

MODEL	DESCRIPTION
MV-A3760	MicroVent 1

74 BRAINTREE SCIENTIFIC • 781-348-0768

### Model 2000 Small Animal Ventilator

Small animal, economical ventilator is designed to be used with animals ranging in weight from 1 to 200 kg.

- ▶ Time cycled: Insures consistent, repetitious, dependable breathing at respirator rates adjustable from 6-40 breaths per minute maintaining the patient at a more stable depth of anesthesia
- ▶ Volume constant: Insures that each delivered breath will have essentially the volume, independent of changes in patient compliance and airway resistance. Deliverable tidal volume (TV) range is from 20cc to 3,000cc.
- ▶ Pressure limited: Provides for patient safety by limiting the maximum working pressure (MWPL) to a user adjustable pressure range of 10-60cm H<sub>2</sub>O.
- ▶ Interchangeable bellows: Keyed filling for safer and pollution reduced filling and draining.



MODEL	DESCRIPTION
VEN2000-A	300-1600ml Bellows
VEN2000-B	0-300ml Bellows

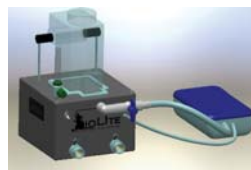
### Bio-Vac Chamber

- ▶ Protects by offering maximum safety during anesthetic induction, eliminates the need for a fume hood
- ▶ Animals remain in an anesthetized state without having to evacuate the chamber to remove gas, prevents animals from waking up
- ▶ Circulates warm air to maintain animals' body temperature
- ▶ Incorporates a self-contained laminar flow system
- ▶ Compatible with your existing system
- ▶ Cage tilts open for easy insertion of animals
- ▶ Emission reduced to 0.02 ppm, 100 times lower than NIOSH Guidelines of 2 ppm. Virtually no release of isoflurane into the room
- ▶ Cage is easily flushed after use



MODEL	DESCRIPTION
EZ-175	Bio-Vac Chamber

### Rodent Inhalation Anesthesia Delivery and Scavenging System



Lightweight and portable system allows the user to maintain multiple animals at the same anesthesia level with a single vaporizer while providing excellent scavenging of the anesthetic, preventing its release into the room.

The standard R-ADS is configured with two delivery ports and an induction chamber. Once the animal is induced with anesthetic, it can be transferred to one of the delivery ports where it can be maintained until user is ready to intubate animal and post intubation while animal awaits further treatment. Delivery ports can also be used as procedure ports for applications where intubation is not required.

R-ADS is custom configurable to support up to four animals. Delivery ports can also be configured for both mice and rats or any combination of the two.

MODEL	DESCRIPTION
SR-ADS	Standard Rodent Unit
MR-ADS	Multi-port Rodent Unit



## Stainless Steel Mobile Workstation



EZ-25000  
(Components shown sold separately)



EZ-27000  
(Components shown sold separately)

Mobile workstations constructed of heavy-duty stainless steel with locking casters, can easily move to multiple locations.

Work surface of 3.5' x 2' Open side shelves accommodate up to 2 CO<sub>2</sub> tanks and 2 O<sub>2</sub> tanks. Below work surface is an open shelf and a 2-door locking cabinet. System can be conveniently set up for maximum flexibility and mobility.

Small Mobile Workstation integrates all E-Z anesthesia components into one convenient mobile workstation. Half the size of the EZ-25000 constructed of the same materials. The top work surface measures 22" x 21" and comes with a locking cabinet and interior shelves.

MODEL	DESCRIPTION
EZ-25000	Mobile Workstation
EZ-27000	Small Mobile Workstation

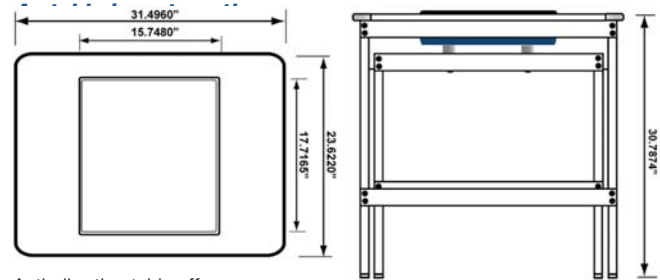
## Anesthesia Pole Stand



- For portable transport of E-Z Anesthesia systems with a minimal footprint.
- Accommodates each of our three New Generation E-Z Anesthesia systems
- Convenient, slide-on mounting
- Swivel top allows precise positioning
- Accommodates two E-tanks
- Stable five-wheel base
- Optional Mayo Tray for surgical tools available – call for pricing

MODEL	DESCRIPTION
E-28000	Anesthesia Pole Stand

## Anti-Vibration Table



Anti-vibration table offers outstanding protection from vibrations for your balances. Solid framed base can be leveled and has ample working space for accessing the balance.

Polished marble slab provides solid support, and combined with specially designed rubber vibration reducing pads, it makes for an anti-vibration table that gives user the vibration relief needed for precision weighing.

The table comprises two separate parts:

- An internal working surface consisting of a large marble slab mounted on adjustable rubber shock absorbing mounts
- An external service table with aluminium frame and adjustable levelling feet

### Specifications:

**Large working surface:** 15.8" x 17.7"

**Overall dimensions:** 31.5" x 23.6" x 30.8"

**Work surface dimensions:** 15.8" x 17.7"

**Weight of work surface:** 108 lbs.

**Total weight:** 170 lbs.

- Ergonomic styling for user comfort
- Rugged construction for durability
- Easy setup aluminum frame
- Adjustable leveling feet to compensate for uneven floors
- Scratch-proof top slab to prevent surface damage

MODEL	DESCRIPTION
AD-VT	Anti-Vibration Table



Visit our website at [www.braintreesci.com](http://www.braintreesci.com)



# Metabolic Cages

## Techniplast® Metabolic Cage Systems



Meticulously engineered cages feature a unique funnel and cone design that effectively separates feces and urine into tubes outside the cage. No urine washover and no chance for urine to enter the feces tube, so separation is immediate and complete. For untainted and reliable samples. All cage parts and stands are autoclavable. Replacement parts available.

- ▶ **Cover** - Large, vented, keeps animal securely in cage. Can be removed for easy access to animal
- ▶ **Upper Chamber** - Made of transparent PC. Surface is smooth, gnaw-proof, noiseless. Cleans easily with warm soapy water or detergent solution
- ▶ **Feeder Chamber** - Located outside cage. Size discourages rodent from nesting or sleeping inside
- ▶ **Feed Drawer** - PC drawer slides out for easy filling without disturbing animal. Ideal for slurries, liquids or powders. Not designed for food in pellet form. Rear portion helps to catch spilled food to prevent contamination of feces
- ▶ **Feces Collection Tube** - Made of non-wetting PMP. Pellets roll down sides of funnel to be collected in tube. Unlocks with single twist from outside of cage without disturbing animal
- ▶ **Urine Collection Tube PMP** - Graduated in cubic centimeters. Unlocks from outside cage without disturbing animal. Can be cooled with an ice bath
- ▶ **Lower Chamber PC** - Can be removed without disturbing animal. Cleans with warm soapy water or detergent solution
- ▶ **Stand - SS** stand or rack must be used with any rodent metabolic cage. Stand supports one cage and provides easy access to all parts. 12-cage racks and refrigerated collection racks are also available. All stands and racks are sold separately
- ▶ **Collection Funnel and Separating Cone** - Unique design and non-wetting PMP ensure immediate, complete separation of feces and urine
- ▶ **Support Grid** - SS grid lets excreta pass through the widely-spaced bars; mouse cage includes mouse-size grid. Grids have handles for easy transport of cage without stand
- ▶ **Water Bottle** - Calibrated PC bottle with SS cap and sipper tube.
- ▶ **Water Spillage Tube** - Collects any water that animals spill. Facilitates accurate collection of fluid intake data
- ▶ Each cage includes complete assembly and use instructions, replacement parts list and warranty card

Designed for rats, guinea pigs and hamsters. Includes same fluid collection tubes and rings as the smaller rodent cages and the following components sized for larger rodents: upper chamber, water bottle and support, feeder assembly and urine collection tube.

*All cages require support stand.*

MODEL	DIMENSION
MTB-0350	Metabolic Cage for Large Rodents, 300g to 850g Overall nom. dim. L x W x H, 14" x 11" x 20.5", 36cm x 28cm x 52cm Domicile portion, nom. dim. I.D. x Ht., 9.5" x 7", 24cm x 18cm Area, sq. in, (sq. cm) 70sq" (450 sq cm)

Includes appropriate feeder drawer and chamber, four fluid collection tubes with funnels (two water spillage tubes and two urine collection tubes), two feces collection tubes and two urine rings.

*All cages require support stand.*

MODEL	DIMENSION
MTB-0100	Metabolic Cage for Rats, 150g to 300g Overall nom. dim. L x W x H, 14" x 11" x 19", 36cm x 28cm x 48cm Domicile portion, nom. dim. I.D. x Ht., 8" x 5.5", 20cm x 14cm Area, sq. in, (sq. cm) 50sq" (320 sq cm)
MTB-0210	Metabolic Cage for Rats under 150g Overall nom. dim. L x W x H, 14" x 11" x 19", 36cm x 28cm x 48cm Domicile portion, nom. dim. I.D. x Ht., 8" x 5.5", 20cm x 14cm Area, sq. in, (sq. cm) 50sq" (320 sq cm)
MTB-0311	Metabolic Cage for Mice Overall nom. dim. L x W x H, 14" x 11" x 19", 36cm x 28cm x 48cm Domicile portion, nom. dim. I.D. x Ht., 8" x 5.5", 20cm x 14cm Area, sq. in, (sq. cm) 50sq" (320 sq cm)

*Contact us if you would like to modify your existing cage to house smaller rodents.*

## Diuresis Metabolic Cage for Mice

For collection of by-products from a single mouse. Smaller separating cone and collection funnel minimize evaporation. Stainless steel screen replaces the collection tube for feces separation. Same upper chamber dimensions as above. Includes feeder assembly, water bottle with cap, and bottle support.

*All cages require support stand.*

MODEL	DIMENSION
MTB-0322	Overall nom. dim. L x W x H, 14" x 11" x 19", 36cm x 28cm x 48cm Domicile portion, nom. dim. I.D. x Ht., 8" x 5.5", 20 x 14cm Area, sq. in, (sq. cm) 50sq" (320 sq cm)

## Cage Stands and Racks

### Cage Stands

- ▶ Stainless steel; nylon supports
- ▶ Holds one rodent metabolic cage

### Vertical Metabolic Cage Rack

- ▶ Holds up to 12 Techniplast metabolic cages for small rats and mice, 3 x 4 configuration
- ▶ Can also be adjusted to hold eight cages for large rodents. Rack is mounted on swivel casters; two lock for safety.



### Horizontal Metabolic Cage Rack

- ▶ Holds up to 12 Techniplast metabolic cages for small rats and mice.
- ▶ Holds two horizontal rows of six cages each
- ▶ Convenient working height. 2 x 6 configuration.
- ▶ Rack is mounted on swivel casters; two lock for safety.

MODEL	DIMENSION
MTB-0400	Cage Stands Dim., L x W x H, 12.5" x 12.5" x 13.375", 31cm x 31cm x 34cm
MTB-0500	Vertical Metabolic Cage Rack Dim., L x W x H, 49.5" x 19.5" x 73.5", 125cm x 50cm x 187cm
MTB-0600	Horizontal Metabolic Cage Rack Dim., L x W x H, 70.0625" x 24.812" x 50.812", 178cm x 63cm x 129cm





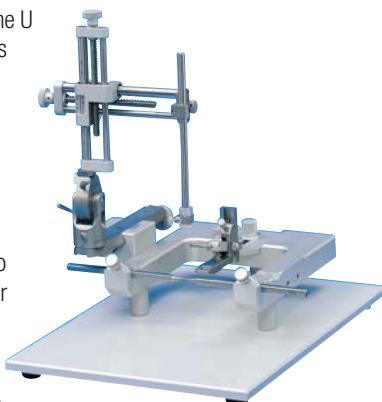
## Lab Standard™ Stereotaxic Instrument

### Single and dual manipulator models

- Read from the open end of the U
- Large, easy-to-read numerals on scale
- Precise alignment to 0.1mm resolution
- Triple-start lead screws for fastest positioning possible
- Absolute lock at 90°

Universal joint allows scientist to probe in either anterior-posterior or lateral-medial planes.

Manipulator arm may be swiveled out of the way for convenience in installing animal, or for performing a procedure, and then reliably returned to the same point. Available with 18° or 45° (non-puncture ear bars).



MODEL	DESCRIPTION
51600	Lab Standard™ 18° Ear bar
51650	Lab Standard™ 45° Ear bar
51603	Dual Lab Standard™ 18°
51653	Dual Lab Standard™ 45°

## Standard Stereotaxic

Like the classic Lab Standard™, the Standard Stereotaxic Instrument has larger laser engraved vernier scales (accurate to 100µm), 80mm of ventral-dorsal, medial-lateral and anterior-posterior travel, absolute lock at 90° ventral-dorsal and brass-bushings for electrical grounding. Available as a digital or motorized model.

- Revolutionary vertically-adjusting ear and nose bar posts
- Revolutionary horizontally-adjusting ear and nose bar posts
- Designed for both rats and mice all on the same base
- No U-frame, maximizes operating space
- Traditional and non-traumatic rat ear bar
- Includes innovative mouse ear bars, mouse and rat nose adaptor, and dual tip ear bars with tramatic (18°) and non-tramatic (45°) ear bars.



MODEL	DESCRIPTION
51500	Standard Stereotaxic, rat and mouse
51500D	Digital Standard Stereotaxic, rat and mouse
51500M	Motorized Standard Stereotaxic, rat and mouse
51501	Standard Stereotaxic, rat and mouse (no manipulator arm)
51503	Dual Standard Stereotaxic, rat and mouse
51503D	Digital Dual Standard Stereotaxic, rat and mouse

## Cunningham™ Mouse and Neonatal Rat Adaptor

The original Cunningham™ Mouse and Neonatal Rat Adaptor fits Stoelting Lab Standard™ and most other brands of stereotaxics. It employs light, tapered Delrin® ear bars, to facilitate surgery on mice and rat pups.



The Cunningham™ Mouse and Neonatal Rat Adaptor features an increased overall length to accommodate larger animals, and new specialized jaw holder cuffs, providing an alternative non-invasive means of securing the animal's head in the stereotaxic stage. Fully compatible with masks for gas anesthesia.

MODEL	DESCRIPTION
51625	Neonatal Rat Adaptor

## Digital Lab Standard™ Stereotaxic Instrument

Digital Lab Standard™ features a sealed electronic sensor, highly immune to interference and environmental conditions. Movements are monitored by a large, easy-to-read LED display module and are accurate to 10µL.



A zeroing function allows the user to target specific coordinates in the brain for injection, implantation, etc. Calculation of distance measurements via the vernier scales is thus no longer necessary...saving the user valuable time and improving accuracy.

MODEL	DESCRIPTION
51900	Digital Lab Standard™ 18° Ear Bars
51950	Digital Lab Standard™ 45° Ear Bars
51903	Dual Digital 18° Ear Bars
51953	Dual Digital 45° Ear Bars

## Digital Just For Mice™ Stereotaxic Instrument

### Two stereotaxic instruments in one

Stoelting Just For Mice™ Stereotaxic Instrument was developed for the expanding growth of research being conducted with knock-out and transgenic mice. It allows the user to perform surgical procedures on two mice at one time.



Precision alignment is accurate to 10 microns in all directions.

Stoelting has created two stereotaxic instruments on a single base with ear bar slots on both sides. A manipulator arm controls medio-lateral and vertical positioning via lead screws, and antero-posterior movement via dovetail slide, with 80mm of travel possible in each direction, allowing access to both ear bar locations. Ear bars may be independently adjusted in height to level the skull.

Delrin ear bars with tapered points, specialized jaw holder cuffs, or rubber pads are included.

MODEL	DESCRIPTION
51725-D	Digital Just For Mice™
51725	Non-digital Just For Mice™



## Matrices

### Acrylic Matrices

High grade acrylic matrices are an economical method to obtain even slices of brain tissues from rats and mice.

These units include the spinal and olfactory bulb notches.

Order *S* for a sagittal style, and *C* for a coronal style.



MODEL	ANIMAL	SPECIFICATIONS
BS-5000C	Mouse	1mm section Coronal
BS-5000S	Mouse	1mm section Sagittal
BS-6000C	Rat	1mm section Coronal
BS-6000S	Rat	1mm section Sagittal

### Anodized Aluminum Brain Slicer



Ideal for frozen tissues. Take advantage of the superlative heat transfer characteristics of aluminum to better preserve tissue structure during freezing. Place fresh tissue in slicer, freeze, and slice. Also suitable for non-cryogenic applications.

Order *S* for a sagittal style, and *C* for a coronal style.

MODEL	ANIMAL	SPECIFICATIONS
BS-AL-505C	Mouse	0.5mm section Coronal
BS-AL-505S	Mouse	0.5mm section Sagittal
BS-AL-5000C	Mouse	1mm section Coronal
BS-AL-5000S	Mouse	1mm section Sagittal
BS-AL-605C	Rat	0.5mm section Coronal
BS-AL-605S	Rat	0.5mm section Sagittal
BS-AL-6000C	Rat	1mm section Coronal
BS-AL-6000S	Rat	1mm section Sagittal

### Precision Brain Slicer

The Precision Brain Slicer is designed to aid the basic research scientist in free hand dissection of discrete regions of rodent brain. Allows investigator to slice either coronal or sagittal sections through the brain (including the olfactory bulbs) at intervals as small as 1mm. All PBS's are identical to insure reproducible sections on a day to day, year to year basis.



#### Applications:

- ▶ Biochemical Pharmacology: The reproducible removal of small brain regions for biochemical analysis, such as the determination of neurotransmitter and metabolite concentrations. Individual brain areas may be either dissected or micropunched from slices formed
- ▶ Anatomy: Precise blocking of the brain prior to microtome sectioning
- ▶ Neurophysiology: Reproducible blocking of the brain prior to vibrotome sectioning

Order *S* for a sagittal style, and *C* for a coronal style.

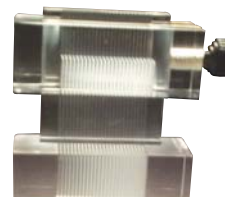
MODEL	SPECIFICATIONS	CAVITY DIMENSIONS
BS-2000C	Adult Mouse, 30gm	13.9 x 9.9 x 7.5mm
BS-2000S	Adult Mouse, 30gm	13.9 x 9.9 x 7.5mm
BS-3000C	Rat, 125-185gm	20 x 13 x 6.8mm
BS-3000S	Rat, 125-185gm	20 x 13 x 6.8mm
BS-4000C	Rat, 200-400gm	25.5 x 16 x 11.2mm
BS-4000S	Rat, 200-400gm	25.5 x 16 x 11.2mm

### Adjustable All-Purpose Acrylic Channel or Cavity Tissue/Brain Matrix

Acrylic all-purpose tissue/brain matrix has an adjustable cutting width and can be used to generate 1mm incremental thick sections in all types of tissues. The adjustable length of cutting surface is from 1mm to 25mm.

The flexibility of these acrylic matrices makes it ideal for many different tissue-slicing functions.

Order *S* for a sagittal style, and *C* for a coronal style.



MODEL	DESCRIPTION
TM-S-9	Straight Adjustable Tissue Cutting Channel; cutting depth 10mm
TM-S-12	Straight Adjustable Tissue Cutting Channel; cutting depth 12mm
TM-C-9	Straight Adjustable Tissue Cutting Channel; cutting depth 10mm
TM-C-12	Straight Adjustable Tissue Cutting Channel; cutting depth 12mm

### Sterile Disposable Biopsy Punch with Plunger



MODEL	SPECIFICATIONS
MTP-33-31A	1mm diameter, 25/box
MTP-33-31B	1.5mm diameter, 25/box
MTP-33-31C	2mm diameter, 25/box

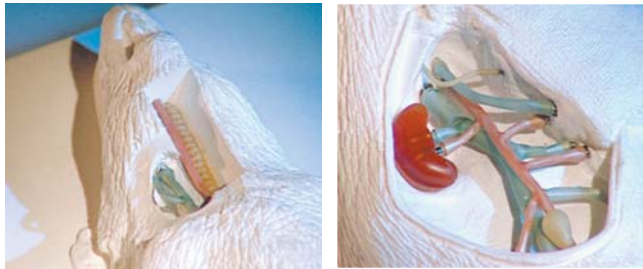
### Tissue Slicer Blades

MODEL	SPECIFICATIONS
BS-BLADES	25 count Steel Blades





## MD PVC-Rat

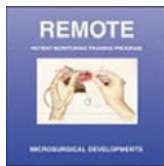


Microsurgical Developments PVC-Rat is an example of the replacement of living animals.

Microsurgical Developments PVC-Rat is developed to master skills in microsurgery.

Using the model during training of scientists and animal technicians, the number of live-animals needed will be reduced drastically.

It gives the possibility of training approximately 25 different microsurgical techniques (i.e. anastomoses, cannulations, transplantations of vessels and organs).



MD-PVC-Rat comes in a carrying case, together with a video-user-guide, several spare parts and the computer simulation program, "Remote," an interactive "patient-monitoring-system", which can be used in combination with the MD-PVC Rat. The software runs on a computer-system with Windows-95 or higher

operating system. One can train the skills needed for patient monitoring during several (micro-) surgical techniques. During surgery, anesthesia can be administered; the animals' temperature and breathing can be observed and controlled. When the exercise is finished, the software generates a full report, showing every event and status.

MODEL	DESCRIPTION
MD-PVC	Model
MD-PVC	Parts

## KOKEN RAT

### Experiment techniques training model



When various experimental procedures are conducted using laboratory animals, it is important to restrain the animal properly and to develop techniques that will meet the necessary experimental objectives. The beginner can

learn the techniques of proper holding, peroral feeding, tail vein injection and blood collection, and endotracheal intubations.

### Characteristics:

- Pharynx, larynx, trachea, stomach, and tail vein are anatomically correct and replicated inside the model of the rat
- To achieve a texture similar to that of a live rat, original silicone and soft vinyl chloride are used
- When placed in position, the posture is the same as that of a live rat
- Dosage in the stomach can be confirmed because part of the abdomen is transparent
- Insertion of a needle into the tail vein can be confirmed by the reflux of the imitation blood

### Techniques:

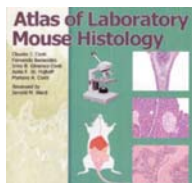
- Retention
- Peroral dosage
- Tail intravenous dosage and blood collection
- Endotracheal intubation

MODEL	DESCRIPTION
KOKEN-MODEL	KOKEN Rat Model
KOKEN-TAIL	Replacement Tail for KOKEN Rat
KOKEN-BLOOD	Replacement Blood for KOKEN Rat

## Electronic Atlas



## Atlas of Laboratory Mouse Histology



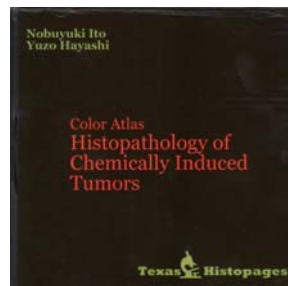
An essential reference source for anyone involved in experimental biology. This disk is an informative reference guide, showing all the organs of the laboratory mouse at four different magnifications. Includes 344 full color microphotographs and 15 full color diagrams. Clear diagrams show the relative positions of organs and up-to-date

information about the histology and microanatomy of the mouse. Content is easily accessible via the menu and a search engine.

**Systems covered:** Integumentary system, hematopoietic and lymphopoietic systems/heart, gastrointestinal, respiratory, urinary, male/female reproductive systems, endocrine organs, nervous system, and sense organs.

MODEL	DESCRIPTION
CD-MHST	Atlas of Laboratory Mouse Histology

## Histopathology of Chemically Induced Tumors



An exact replica of the Soft Science Publications atlas published in 1987 by the same name. It contains about 650 color photos and corresponding text. It is a unique collection of excellent color microphotographs of almost all lesions found in experimental animals treated with chemical agents. It is a very useful reference for experimental pathologists, cancer researchers and toxicologists.

MODEL	DESCRIPTION
CD-LALES	Histopathology of Chemically Induced Tumors

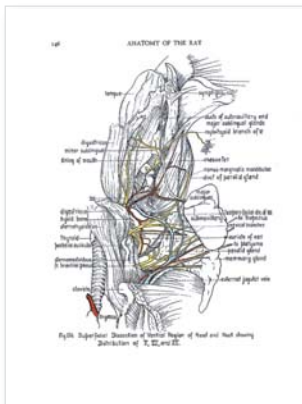
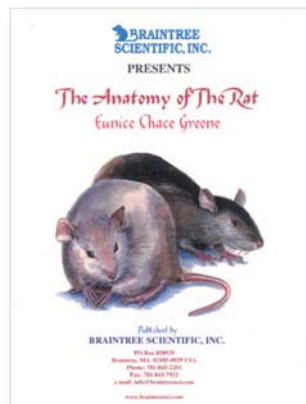




## Reference Books

### Anatomy of the Rat

By Eunice Chace Greene



**Available only from Braintree Scientific**

This classic book offers basic reference for all researchers using laboratory rats. It includes 339 precisely detailed presentations of the rat - numerous colorful, hand sketched skeletal diagrams provide a thorough analysis of the anatomy of a rat. The large format (8.5" x 11"), clarity of the presentations, and its spiral binding - allowing it to lay flat, contribute to this valuable researcher's assistant. Whether in the library or lying on a laboratory bench, this reference book is a valuable tool. In our opinion, no other textbook even comes close!

MODEL	TITLE
AR	Anatomy of the Rat

### A Color Atlas of Sectional Anatomy

by Takamasa Iwaki, Hiroshi Yamashita, Toshiyuki Hayakawa



Published in Japan, September 2001.  
185 pages hardcover

**Available only from Braintree Scientific**

The mouse is the most widely used laboratory mammal in biomedical research such as evaluation of the safety and effectiveness of new pharmaceutical products, research in tumor suppression, and vaccine and monoclonal antibody proportional studies.

Rats are used to research a wide field including preclinical tests, microbiological research, carcinogenic experiments, neurology, physiology, toxic tests, pharmacological effectiveness tests, etc. Anatomy is one of the important basic sciences and although much progress has been recently made in the field of human imaging diagnosis, information on sectional anatomy of experimental animals is lacking at present.

- Specimens were not fixed but kept in a frozen state so that photographic information close to the living state could be obtained
- All photographs are in color for detailed observation
- Each atlas has numerous color pages, 2 pages of black and white macro-anatomical photographs are provided
- All pages consist of photographs making detail more comprehensive and three-dimensional than the usual pictorial atlas
- The anatomical terms used are in Japanese and English

MODEL	TITLE
SECT-MOU	A Color Atlas of Sectional Anatomy of the Mouse
SECT-RAT	A Color Atlas of Sectional Anatomy of the Rat

### Handbook of Laboratory Animal Science, Volumes I, II and III

Editors - Per Svendsen Odense University, Denmark, Jann Hau, The Royal Veterinary College, London, U.K.

This three-volume set presents a comprehensive description of laboratory animal genetics, diseases, health monitoring, nutrition, and environmental impact on animal testing. It considers the ethics of animal experimentation through a complete review of European and North American legislation on the topic. It discusses alternatives to animal experiments, including the use of isolated organs, cell cultures, and computer simulations.

MODEL	TITLE
LAS-I	Handbook of Laboratory Animal Science, Volume 1
LAS-II	Handbook of Laboratory Animal Science, Volume 2
LAS-III	Handbook of Laboratory Animal Science, Volume 3

### Manual of Microsurgery on the Laboratory Rat

**An up-to-date didactic manual describing experimental microsurgical techniques in great detail.**

The manual includes general information about rat, i.e. anatomy, anaesthesia and sterility and a wide range of general techniques. Sections on experimental techniques are covered in the greatest depth. All essential steps that are taken during the operations are shown in meticulously accurate drawings thus making the manual an accurate instrument in teaching and studying microsurgery and microsurgical techniques.

MODEL	TITLE
MICROSURG	Manual of Microsurgery on the Laboratory Rat

### The Laboratory Animal Pocket Reference Series

Basic information and common procedures are presented in detail for individuals performing research with below mentioned animals. Guides include duties of animal facility management, animal husbandry, regulatory compliance, and technical procedures. As new books in this series become available, we will add them to the list.

#### The Laboratory Mouse

By Mark A. Suckow, University of Notre Dame, Notre Dame, Indiana, USA, Peggy Danneman, The Jackson Laboratory, Bar Harbor, Maine, USA, Cory Brayton, Baylor College of Medicine, Houston, Texas, USA

#### The Laboratory Rat

By Patrick Sharp and Marie LaRegina, Washington University School of Medicine, St. Louis, Missouri

#### The Laboratory Hamster and Gerbil

By Karl Field Hoffman-LaRoche, Inc., Nutley, New Jersey  
Amber Sibold Sandoz Pharmaceuticals Inc., East Hanover, New Jersey

#### The Laboratory Guinea Pig

By Elizabeth Terril-Robb VPR/LAP, Purdue University, West Lafayette, Indiana, Donna Clemons Corning Hazelton, Madison Wisconsin

MODEL	TITLE
LABMOU	The Laboratory Mouse
LABRAT	The Laboratory Rat
LABHAM	The Laboratory Hamster and Gerbil
LABGP	The Laboratory Guinea Pig

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